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ABSTRACT

In 1979, the Teachers' Centers Exchange, working through the Far West Laboratory for Educational Research and Development, began a program that provided financial awards for the conduct of collaborative research on exemplary teachers' centers practices. From September 1979 through March 1982, 15 teachers' centers participated in 14 research efforts. Section I of this summary report gives background information on teachers' centers, the Teachers' Center Exchange, and the research project's organization and implementation. In section II, an overview of related research on teachers' centers focuses on inservice education, the role and relationship of school principals to teacher inservice and teachers' centers, and assessments of teachers' needs and interests. Section III contains an analysis and summary of results from the 14 research projects. Discussion is presented about: (1) participant characteristics; (2) responses to individual teacher requests for help outside the centers; (3) interaction with teachers in the center; (4) teachers' center relations with other key persons; (5) assessment of teachers' concerns and needs; and (6) teachers' centers governance. In section IV, the nature of the collaboration between researchers and practitioners during the project is described. The fifth section focuses on implications for practice emerging from the research findings. Appendices include descriptions of proposals for the project, a list of proposal reviewers, a sample proposal review form, and research project summaries. (JD)

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RESEARCH IN, ON, AND BY TEACHERS' CENTERS

SUMMARY REPORT

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July, 1982

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RESEARCH IN, ON, AND BY TEACHERS' CENTERS: SUMMARY REPORT

In 1979 the Teachers' Centers Exchange, working through the Far West Laboratory for Educational Research and Development, began a program that provided financial awards for the conduct of collaborative research on exemplary teachers' center practices. During the period of September 1979 through March 1982, 15 teachers' centers participated in 14 research efforts. The program was supported by the National Institute of Education. This Report includes a background on the program, information on the management of the program, a review of related research, summaries of each of the 14 projects, a commentary on collaborative research efforts, and a commentary on some implications of the results.

We prepared this Report with the assistance of the staff of the Teachers' Centers Exchange and the participants in the 14 research projects. In addition to the project summaries included in this report, interested readers may receive copies of any or all of the 14 project reports by writing the Far West Laboratory for Educational Research and Development, 1855 Folsom Street, San Francisco, CA 94103. (Indicate the title of each report you request.)

We hope this report, and the reports from the individual projects, will be helpful in understanding teachers' center practice. We also hope that these results will encourage others to continue collaborative research on teachers' centers, and on staff development efforts generally.

William Hering
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July 1982

I. INTRODUCTION

A. Some Background on Teachers' Centers in the United States.

In the late 1960s and the early 1970s about forty teachers' centers were established in this country. Several factors contributed to the initiation and growth of these centers. Major curriculum development efforts in the 1960s presented new curricula but did little to prepare teachers to teach these curricula. The open education movement spawned workplaces and advisory assistance in which teachers could be helped to create, adopt, and use informal, "experiential" curriculum materials and instructional methods tailored to their individual classrooms. Inservice education was increasingly criticized for lack of teacher involvement in course design and for instruction that was irrelevant to teachers' daily needs. The growing influence of the teacher unions supported the position that teachers should be actively involved in planning their own inservice education. And as fewer new teachers entered the profession, need for inservice was perceived to be greater than for preservice education. All of these factors interacted and contributed to an increase in teacher-designed or teacher-responsive inservice education. Teachers' centers are one important example of this change in inservice education. Some of these new centers were based at universities, some within local districts, and a few were independent of any formal educational authority.

Teachers' centres in England and Wales preceded the establishment of American teachers' centers. In the United Kingdom the Nuffield Foundation, which supported the Science and Mathematics Curriculum Projects, also supported teachers' groups to encourage teacher involvement in curriculum development and "hands-on" teacher preparation to use the new materials. These groups became the first teachers' centres. Today there are more than 600 centres in the United Kingdom. Few British centres still focus on a single subject and almost no centers in this country do. However, the original intent of these United Kingdom centres--to encourage full participation of teachers in curriculum development at the local level--remains an important element in American teachers' centers today.

Throughout the sixties and seventies the United States Office of Education (now the Department of Education) supported new forms of teacher education. In 1971 a National Teacher Center Pilot Program was created; four pilot projects, each emphasizing a different approach, were supported. Then, in 1976, Public Law 94-482 was passed, creating the authority for federal support of teachers' centers. Sixty-one centers were supported in the first operational year of the program (1978-79) and approximately 49 more were funded over the next three years. The Federal Teacher Centers Program is now one of the programs included in the Education Consolidation and Improvement Act of 1981. The major portion of these monies flow through state education agencies to local districts on a formula basis. Given the current widespread economic problems at the local level it is problematic how much of this block grant money will be available for teachers' centers. Nonetheless, the Federal program has made important contributions to the movement. It has brought the concept of teachers' centers to the attention of thousands of educators. It has supported 110 centers that provided diverse programs for teachers. Many of these will survive, although perhaps in modified forms, now that Federal support has ended. The Federal program is an important aspect of the teachers' center movement. However, centers were operating before the Federal support began and many of these centers continue to exist today.

B. Some Ways of Defining Teachers' Centers.

In attempting to define centers, it is helpful to consider what kinds of centers exist. Sykes (1980) identified five possible functions served by teachers' centers, expanded on each, and suggested that these may represent competing views with each view having its advocates. His major functions include: (1) to reduce the gap between the growth of knowledge and the availability of that knowledge to teachers; (2) to promote social change by assisting teachers in meeting the several social-educational goals assigned to schools; (3) to improve teaching practice by providing opportunities to develop greater teaching skill and remediate identified weaknesses; (4) to promote the personal growth of teachers, a view based upon the belief that becoming a good teacher is more of a craft than a science; (5) to assist in school improvement efforts, focusing less on concerns of individual teachers and more on the cross-cutting problems of a school faculty.

Another way of categorizing teachers' centers is to examine their philosophical orientations. Feiman (1977) believes that basic differences among teachers' centers stem not so much from the organizational forms they take as from the assumptions on which these forms are built. She suggests that there are fundamental differences on which these forms are built. She suggests that there are fundamental differences in beliefs about what teachers are like, who should control their education and training, and how they can best be helped to improve their work. Feiman identified three philosophical orientations undergirding centers: (1) the behavioral type teachers' center which is designed to improve specific teaching behaviors; (2) the humanistic center, which focuses on creating a learning environment where teachers feel psychologically supported within a neutral arena; and (3) the developmental center, which encourages teachers "to reflect on their teaching and to clarify and assess the assumptions which inform it."

Feiman underscores an important difference in the developmentally oriented approach. She states that it "involves qualitative shifts in the ways teachers organize experience in their heads, and, by implication, in their classrooms." Thus, concerns of a developmental center dictate systematic, long-term involvement for teachers. This is a style which contrasts with the many spontaneous, relatively short encounters associated with humanistic centers and also with the more prescriptive training and educational products characteristic of the behavioral-type centers.

Because teachers' centers serve many teachers, they often represent more than one of the five functions identified by Sykes. Similarly, a teachers' center staff may adopt what Feiman refers to as a humanistic approach for some teachers, a developmental approach that includes humanistic principles for other teachers who return to the center frequently, and still allow for the inclusion of behaviorally oriented programs in their schedule of activities as well. Thus, these classifications help to describe the variety of teachers' centers, but they should not be construed as mutually exclusive concepts. Teachers' centers are known for their diversity; no single or simple definition is likely to define even a few centers.

C. The Teachers' Centers Exchange.

Since 1975 the Teachers' Centers Exchange, housed at the Far West Laboratory for Educational Research and Development, has served the variety of teachers' centers in this country by facilitating an exchange of expertise among those working in centers. This has been accomplished largely by responding to individual requests for information about centers, spotlighting and circulating information, ideas, and themes related to teachers' centers, and arranging for meetings among teachers' center people and those who wish to learn about, with, and from them. The Exchange has been supported by the National Institute of Education, United States Department of Education, and continues to serve as the only organization which is available for assistance to all teachers' centers without regard to their political or fiscal affiliation or to their philosophical orientation. Included in the network facilitated by the Exchange are teachers' centers which began with support from the United States Department of Education, centers which are supported by local school districts, centers supported by universities, and centers which are supported through private means.

D. Organization and Implementation of the Research Program.

When the National Institute of Education decided to conduct research that would focus on exemplary practices in experienced teachers' centers, they turned to the Exchange to assist them in this task, and to manage a program of Awards for Research on Experienced Teachers' Centers. The program, which began in 1979, was coordinated by the Teachers' Centers Exchange, the Exchange staff serving as the staff of the research project. The intent of the program was to provide small awards for research in which teachers' center practitioners would collaborate with researchers to develop knowledge about practice in teachers' centers. It was believed that greater access to persons in teachers' centers could be obtained by working through the Exchange and that the Exchange staff could assist centers in obtaining the services of researchers and conducting research within a relatively small budget. The research was to focus upon specific interests or concerns of those operating or otherwise supporting centers.

The Exchange sought the advice of teachers' centers practitioners, experienced researchers with an interest in staff development, representatives of the organized profession, staff of state education agencies, and U.S. Department of Education Teacher Centers Program staff in developing a list of suggested research topics. Four topic areas were defined:

1. Studies of the effects of participation in teachers' centers programs.
2. Studies of teachers' center(s) programs.
3. Studies of decision making in teachers' centers.
4. Studies of the relationship of teachers' centers with other staff development programs, school district activities, or with the larger community.

A description of these suggested areas of research was included in the Announcement of Awards for Research on Experienced Teachers' Centers. The first Announcement of Awards was distributed to approximately 300 people. People also learned of the availability of these awards through notification in several publications, including the Bulletin of the Teachers' Centers Exchange. The Announcement stressed that the four identified areas for research were only suggestions and applicants were encouraged to request support for research in other areas as well.

There were four rounds of competition for awards. A total of 55 proposals were received by the project staff; 14 were funded. A list of all proposals received for each of the four rounds, including information about which were funded, is included as Appendix A to this report.

In order to obtain reviewers for the proposals three sources were tapped: the National Education Association, the American Federation of Teachers, and the Teachers' Centers Exchange. Each of these sources nominated potential readers, and from those lists a total of 25 reviewers were selected. Their credentials included research experience and/or experience in directing or serving on the staff of teachers' centers. A list of all readers and their affiliation is included as Appendix B. Applicants were informed through the Grants Announcement that reviewer assessments would be important considerations in the decision making process, but that final decisions would be made by the staff of the research program.

Reviewers were asked to comment on proposals on the basis of four criteria: (1) significance of the proposed research for teachers' centers; (2) quality of the proposed study; (3) adequacy of the site in which research will be conducted; and (4) qualifications of the proposed staff. Then reviewers were to indicate one of five categories in which they would place the proposal:

a. An outstanding proposal which should be supported above almost all others.

b. A strong proposal that should be supported if minor revisions are made.

c. A proposal of average quality that may be supported as it investigates an important topic.

d. A proposal of poor quality which should not be supported without changes.

e. A proposal which should not be funded under any condition.

This procedure helped the Exchange staff identify important aspects of proposals, and to identify outstanding proposals. (The Proposal Review Form is included as Appendix C.)

All proposers were sent copies of reviewers' comments (with names deleted). This was helpful for successful proposers because they could identify areas in which they could improve their proposed research activity. More importantly, unsuccessful proposers were given specific information about what reviewers did not like about their proposals. In every case, these reviewer comments were accompanied by a letter indicating why the program staff had decided not to support the proposal in that Round, and (with the exception of the last Round) were given specific suggestions as to how they might improve their proposal so that it would be successful in a later Round.

In summary, four Rounds of competition were announced from April 1979 through November 1980. A total of 55 proposals were received and reviewed by field readers representing the research community, the teachers' center network, and the organized profession. Fourteen proposals were funded; the average amount of support was $18,200. A short summary of each project (written by each projects' staff) is included as Appendix D of this report. Copies of the full final reports from all 14 projects are available from the Far West Laboratory for Educational Research and Development, 1855 Folsom Street, San Francisco, CA 94103.

E. The Synthesis Conference.

In January, 1982 a meeting was convened at the Wingspread Conference Center in Racine, Wisconsin, co-sponsored by the Johnson Foundation and the Far West Laboratory for Educational Research and Development. Each of the 14 research projects was represented by at least one teachers' center participant and a researcher who collaborated with that project. The Teachers' Centers Exchange staff, two members of their Advisory Committee, and an NIE representative also participated. Although part of the meeting was spent in review of the 14 project results, the main portion of the meeting focused on issues of collaborative research, issues of methodology, a discussion of strategies for continuing the research perspective in centers, and the benefits obtained by involving teachers and center staff in research.

This conference served to synthesize the 14 research projects, to stimulate researchers' and practitioners' thinking and talking around issues of common concern, and to identify areas in which further research seems warranted. Comments from participants in the Wingspread Conference are included in this report, and many of the conversations are reported in Section IV of this report. The conference was uniformly praised as an important opportunity to share research results and discuss issues; it was especially valuable in preparing this report.

The remainder of this report consists of a view of other research related to teachers' centers, an analysis of the substantive results of the 14 research efforts supported through this program, some commentary on collaborative research efforts, and an identification of some implications of the research results from the 14 projects.

II. RELATED RESEARCH ON TEACHERS' CENTERS

A. Introduction.

Teachers centers are a relatively recent phenomenon and conceptions of centers are still evolving. Efforts to study centers have been disparate and complicated by a number of factors. These include limited monies to support research in the centers, the limitations in methodology needed to study centers, the fact that researchers in universities and research centers have been minimally involved in teachers' center efforts and an understandable complex of legal/political issues attendant to the evolution of these centers which has preempted empirical study.

The literature on inservice education needs to be interwoven with and related to the literature on teachers' centers. Given the paucity of research into inservice education in general, it is not surprising that there has been but minimal inquiry into teachers' centers. This condition underscores the importance of the 14 projects reported in this study. They represent not only some of the earliest research, but some of the first research conducted by persons directly involved in centers.

> Little or no research has been done on teacher centers from those who direct the centers in local school districts. What little has been done was conducted by university-based persons or persons from large corporate-type complexes... (Harty, 1981)

Thus, in this review of research we will examine studies and major reviews of studies of inservice education that have implications for teachers' centers generally. Also, included in this general review will be some attention to research on effective schools, research on adult learning, and research on change efforts in education as they relate to teachers' centers. Following this we review research on both inservice education and teachers' centers which addresses some of the specific topics selected for study in the 14 projects included in this report. Included here will be brief reviews of the literature on governance, needs assessment, the role of the principal in continuing education efforts, and the interaction of key people in teachers' center endeavors.

B. Research on Inservice Education Related to Teachers' Centers.

One of the most commonly cited reviews of the general inservice literature was conducted by Gordon Lawrence (1974). Lawrence analyzed 97 studies which met his criteria for research. His review of the general inservice literature suggested the following:

- School-based programs in which teachers participate as helpers to each other and planners of inservice activities tend to have greater success in accomplishing their objectives than do programs which are conducted by colleges or other outside personnel without the assistance of teachers.
- Inservice education programs that place the teacher in active roles (constructing and generating materials, ideas, and behavior) are more likely to accomplish their objectives than are programs that place the teacher in a receptive role.
- Teachers are more likely to benefit from inservice programs in which they can choose goals and activities for themselves as contrasted with programs in which the goals and activities are preplanned.
- Self-initiated and self-directed training are seldom used in inservice education programs, but this pattern is associated with successful accomplishment of program goals.

Lawrence's summary strongly supports characteristics of teachers' centers which the 14 studies also report as important. The active involvement of teachers in a variety of professional development activities appears to be the essence of teachers' centers. The potency of teachers assisting other teachers is commonly acknowledged in teachers' centers studies and is highlighted for example, in the research undertaken in the St. Louis Metropolitan Teacher

Center. A number of the 14 research projects stress using the teachers' knowledge and experience in the resolution of problems; the study in the Chicago Teachers' Center examines one procedure for doing this in some detail.

A recent large-scale survey undertaken by Yarger, Howey, and Joyce (1980) also lends support to many of the practices reported as helpful in the 14 projects. Their survey was designed to study the experiences, attitudes, and opinions about inservice education of almost 4000 teachers, some 1200 community respondents and some 250 professors of teacher education. Yarger et al concluded that inservice education appears to be constrained in both quantity and quality. Inservice is, in operational terms, a largely undifferentiated concept for many people who either provide inservice or participate in it. This is to say that for a great number of people their experience with inservice education is no more than a workshop or a course. Participants in this study very rarely reported classroom follow-up or individually-directed forms of continuing education. This is not to say that teachers in the study were not able to articulate a variety of needs and interests; they were able to describe a range of possible inservice activities. Common criticisms of inservice are not so much that the content is irrelevant per se but rather that it often occurs at the wrong time, in the wrong place, and is engaged in with the wrong people.

> It is going to be necessary in the future to access a much wider variety of need areas than have traditionally been taped. Teachers have multi-dimensional concerns about their professional lives that clearly transcend the typical needs assessment instrument and/or process. They are concerned about their own growth as professionals and as human beings, they are concerned about options for becoming involved in inservice education, they have many suggestions for selecting instructors for inservice programs and preferences concerning delivery options. Teachers can be discriminating on a wide variety of topics, and these must all be accounted for in any initiation and development efforts for inservice programs. (Yarger, Howey, and Joyce, 1980)

This survey is consonant with findings reported in the 14 projects. For example, in the Ferguson Teachers' Center it was found that standardized forms can be utilized to bring teachers together around general topics of interest and concern, but the ability to uncover more fundamental concerns and problems of teachers and to work with them developmentally over time requires a variety of more personal diagnostic approaches. The efficacy of various informal assessments of teachers' intersts and concerns was articulated in several of the 14 projects even though this was not their major focus. These studies begin to reveal more clearly how the center environment itself, the manner in which center staffers interact with teachers both initially and in an ongoing way, and the ability to form networks of teachers outside the center all contribute to a clearer vision of the needs and interests of teachers.

Joyce and Showers (1981) reviewed a number of teacher training studies, both pre- and inservice, and concluded that more intensive and powerful interventions are needed in many situations if teachers are to fundamentally alter their practices. These investigators outline a four step approach to inservice education. The first phase emphasizes the presentation of undergirding theory with a clear description of goals and the skill strategy in which the teacher will be involved. These verbal and written abstractions are not enough however. For in the next phase Joyce and Showers call for modelling or demonstration of skills either live or through the use of video tapes. They go on to support the Yarger et al. (1980) research and emphasize the need for follow-up and practice in actual classroom settings. Included in this practice are both structured and open-ended feedback. Finally, they suggest that further coaching of a follow-up nature is likely needed.

The teachers' centers studies conducted in Brookline and Oakland both illustrate how centers can assist teachers to clarify their own conceptions or theories of teaching and learning. It would appear then that in exemplary centers there is an emphasis not only on theory but on theory grounded in practice and related specifically to individual teacher behaviors. Similarly, it would appear that there is a modelling of behaviors in teachers' centers that is not apparent in most other inservice education activities. In many centers, multiple examples of how to construct curriculum are available and personal needs can be accommodated. However, there does not seem to be much evidence that center personnel have been able to follow-up effectively in school settings. For example, in the study of "active-staffing" in the Chicago center, little success is reported in terms of follow-up with teachers in the classroom. Given limited resources the follow-up problem is understandable. It is possible that the only way extensive school-focused forms of inservice can occur is by preparing school-based personnel in teachers' centers to work further with teachers in their own classrooms, such as was reported in the Charlotte project.

In 1980, Howey reviewed both the research and non-research literature relative to inservice education in the western European countries participating in an inservice project sponsored by the Organization for Economic Cooperation and Development (OECD). This extensive review of the literature suggested some of the following attributes of effective inservice education efforts:

1. Interactions between the teacher as a person, the teacher as a learner, and the teacher at the school site are all given consideration.
2. Interactions between organizational change, curricular change, and individual teacher change are considered and are incorporated into planning for inservice.
3. Teachers are integrally involved in every facet of the planning, implementation and evaluation process.

4. Attention is not only given to individuals, but to key functioning groups and even entire school faculties.

5. Regardless of the number of teachers involved however, individual differences are accommodated.

6. There is continuity in the inservice. The process is often an incremental or developmental one.

7. There are opportunities for reflection as well as practice.

8. Inservice is often synonomous with experimentation or problem solving tied to the daily instructional tasks of the teacher; it is differentiated from teaching in many cases only by its intent and the type of examination or sharing among teachers that takes place later.

This set of ad hoc characteristics provides but a partial explanation for success in different types of inservice education activities. Nonetheless, the implications for and congruence with activities in teachers' centers is obvious. One of the ingredients in many successful center efforts is the social dimension in center activities, the acknowledgement of the teacher as person as well as a learner. The informal and collegial nature of many of the efforts undertaken in teachers' centers appears to fulfill teachers' need for social interaction and personal validation. While one cannot be sure of the extent to which different centers attempt to examine and take into account the organization and curricular changes in specific schools, there have been some efforts in this direction. The study undertaken at the School Resource Network in Ventura clearly illustrates the problems of a center attempting to work with an entire school faculty.

Inservice education and staff development activities, whether conducted in the teachers' center or at a school, are less successful if insufficient attention is paid to either the personal characteristics of teachers or the context in which those teachers work. Both the research on adult learning and the research on effective schools reinforce these clues as to what constitutes effective inservice education. In a recent study of school success and staff development, for example, Little (1981) identified two powerful norms which appear to characterize successful schools. One of these is the notion of collegiality and cooperation. In this orientation the instruction of students is a shared responsibility and not something which is undertaken priamrily by individuals in the isolation of their classrooms. The second norm is the belief that the acquisition of knowledge and practice is a continuous and never-ending endeavor. This calls for ongoing analysis, evaluation, and experimentation in the classroom. According to Little, a school which reflects these two norms would have the following characteristics:

1. Frequent talk among teachers about the practice of teaching.
2. Frequent observation of the practice of teaching by one another.
3. Teachers working together in planning for and conducting their instruction.
4. Teachers actively learning from one another.

These characteristics of a successful school as identified by Little also appear to be characteristics of an effective teachers' center. It would appear that the physical properties of a center accommodate the type of cooperation and interaction found in successful schools. The desirability of teachers being able to actively learn from and with one another is reported in a number of the studies on teachers' centers. It is likely that for many teachers the environment of the teacher center is a stark contrast to the more isolated and non-collegial environment of the school in which they work.

Griffin (1982) in discussing the I.D.E.A. study of school change (which investigated 18 schools over a five-year period) shares a perspective similar to Little's. He quotes Bentsen (1974) in noting that those schools which were most receptive to change had a number of observable and related processes occurring. She labelled them: dialogue, decision making, action, and evaluation. These activities were believed to be central to the ability to effect desired changes. A related finding is that it appeared both necessary and desirable for teachers and administrators to work together on identifying problems of mutual interest or concern. It was equally important that they believed that the resolution to these problems resided within themselves and their own environment.

This is a considerable departure from the "outside-in" or a reliance-upon-experts approach to solving problems. Those research projects that examined characteristics of teachers' center participants found some consensus about who usually participates in center efforts. These teachers tend to be reflective, they seek alternatives, and if they are not satisfied with their present condition they tend to work with others in the resolution of those problems. There is a similarity here with the findings reported by Griffin and Little. The "active staffing" approach articulated in the Chicago study underscores the importance of placing a large share of the responsibility for the resolution of problems or movement in new directions upon teachers themselves.

These studies suggest a confluence of general principles undergirding successful inservice education, effective schools, and exemplary teachers' centers. The confluence can be carried further by including accepted principles of adult learning. For example, in a recent review of principles of adult learning a number of conditions that promote learning by adults were identified. These include:

- Adults will commit to learning something when the goals and objectives of the inservice are considered realistic and important to learn; that is, job-related and perceived as having immediate utility.
- Adults will readily learn, retain, and use what they perceive to be relative to both their personal and professional needs.

- Adult learning is ego-involved. Learning a new skill, technique, or concept may promote a positive or negative view of self. There is always fear of external judgment that adults are less than adequate, which produces anxiety during new learning situations such as those presented (often in inservice programs). Adults may come to any learning experience with a wide range of previous experiences, knowledge, skills, self-direction, interest, incompetence. Individualization therefore is as appropriate for adults as children.

- Adults want to be the originators of their own learning; that is, involved in selection of objectives, content, activities, and assessments in inservice education. And finally adult learning is enhanced by behaviors that demonstrate respect, trust, and concern for the learner. (Wood and Thompson, 1980).

There is little need to further elaborate on these enabling conditions. They permeate the 14 projects in terms of practices and conditions that were reported. While they may appear obvious we should remind ourselves that they nonetheless are not honored in a great many staff development activities.

Conditions which facilitate adults' learning generally are one matter; those behaviors and conditions that promote dimensions of psychological development are quite another. While the conceptions of various dimensions of adult development, and the efforts to measure these, are still relatively embryonic, several scholars working independently of one another have developed similar constructs about adults' psychological growth. In general these studies suggest that adults move from less differentiated and dichotomous thinking and less sensitivity to others, to more complex and differentiated reasoning and empathic responses. Numerous studies of teachers determined to be more conceptually complex suggest that these teachers demonstrate more flexibility, empathy, and a broader repertoire of teaching behaviors within their classrooms.

There have been numerous efforts to match learning environments or inservice activities with teachers' developmental stages in their professional growth. There have also been a few attempts to stimulate development to higher stages. Sprinthall (1980) has suggested some of the ingredients of successful inservice activities, deriving them from adult development principles. Critical ingredients in a developmental approach to instruction include: a balance between action and reflection, a balance between challenge and dissonance on the one hand and psychological support on the other, and finally, the ability to engage in new and challenging role-responsibilities.

A careful reading of the reports of the 14 projects provides numerous instances of how efforts have been made to promote teacher growth through reflection about their teaching. It is also apparent that teachers are challenged in comfortable, but nonetheless persistent ways. None of the 14 projects reports specific examples of teachers assuming markedly different roles or responsibilities, but it does appear that many of the characteristics tentatively identified by Sprinthall are found in several of the centers that conducted research.

Yet another area that appears to have direct relationship and applicability to teachers' centers is the research on efforts to change schools. The most notable of the change studies is the widely-cited Rand Change Agent Study conducted by Berman and McLaughlin (1975). They conducted survey research on almost 300 federal projects operative in school districts across the country and followed this up with field work in 30 of these projects. In a most enlightening analysis Sally Mertens (1982) examined relationships between major findings in the Berman and McLaughlin study and a recent large-scale study of federal teachers' centers (Mertens and Yarger, 1981). Mertens identifies numerous findings from the Rand study that are supported by the Mertens and Yarger research.

1. Administrators and teachers collaborated in decisions about goals and activities.
2. There are resources that respond in a relatively quick and timely manner to teacher-identified needs.

3. Hands-on activities are an essential aspect of teacher inservice.
4. Local resources, especially teachers, are employed in inservice activities.
5. Inservice activities are frequently conducted during the course of the instructional day.
6. Resources are available to provide ongoing support and inservice of a developmental nature.
7. There is an emphasis on classroom materials.
8. Participation is voluntary.
9. There are multiple opportunities for information interaction among teachers.
10. The teachers are viewed and respected as professionals.

After reviewing these and other findings from the Rand study, Mertens goes on to illustrate how the recent survey of 37 Federal Teacher Centers corresponds to these findings. For example, Mertens and Yarger report that these centers place major emphasis on being able to respond quickly to the needs of the individuals. They report over 55,000 instances of teachers being served on an individual basis. Over 90% of the centers provided material resources and equipment for teachers to use on an individual basis; the majority of centers allowed for the further production of materials as well. Not only are these responses typically made relatively quickly and on an individual basis, but they appear to be in many situations a direct response to teachers' requests. Mertens and Yarger report that more than half of the 1500 workshops, courses and seminars which they reviewed in their study were developed in this fashion.

The Rand Study suggested that teachers frequently resisted outside consultants, often because they lacked sufficient information to address teachers' specific needs and problems, nor could they be counted upon to follow-up at a later date. The Mertens and Yarger survey revealed that more than half of the teachers' center activities appear to be facilitated either by practicing classroom teachers or by teachers' center staff who had recent experience in classroom teaching.

Mertens comments that many teachers' centers are able to provide material support, emphasize materials development, rely on voluntary participation, facilitate the aforementioned social interaction and problem solving, and at the same time respect the dignity and professionalism of teachers. She indicates that the activities of the federally-funded teacher centers parallel the successful change-oriented schools in the Rand study. One major discontinuity between findings communicated by the Rand Study and those suggested in the Yarger-Mertens study is that professional learning is a long-term, often non-linear process. The data in the Mertens and Yarger report suggest that while a long term approach is commonly a goal for those who staff teacher centers, many activities sponsored by centers and many teachers who participate in centers apparently do so on a much more sporadic and short-term basis. Several of the 14 projects included in this report do indicate a commitment to a long-term, developmental approach.

There are additional findings of general interest in the Mertens and Yarger study. It appears that many staff members of teachers' centers, in addition to their one-on-one and small group consultation roles, also frequently engage in what is basically a brokerage role. If they are not able to fulfill teachers' requests themselves, they find other teachers who can. Almost two-thirds of the centers in the Mertens and Yarger study report that they assist teachers in this match-making manner. The most common resource that is allocated is another teacher. Another important finding relative to both group and individual activities undertaken in the centers is the priority placed on the instructional needs of students. These investigators report that almost 75% of the activities in the center had this goal as a focus. Topics which could be construed as more general and professional in nature, such as leadership training, or personal issues such as teacher stress or personal fulfillment activities simply were not common in the centers that were studied. Thus, one could conclude from these data that, given the opportunity to determine their own agenda, teachers most often wanted activities that translate into improved instruction in their classrooms.

This concludes our brief review of the research on inservice education as it relates to teachers' centers. At this time we turn our attention to the existing research on some of the specific topics studied in the 14 projects included in this report.

C. The Role and Relationship of Principals to Teacher Inservice and Teachers' Centers.

Certainly the data from the Change Agent Study is not limited to those findings selected by Mertens as consistent with teachers' center activities. For example, both the field work and survey analysis undertaken in the Rand Study suggest that teacher commitment was strongly influenced by the motivation of district managers. The attitudes and behaviors of those in key administrative roles in the districts about proposed changes were a definite signal to teachers as to how seriously they in turn should take the proposed project. McLaughlin and Marsh (1978) indicated that their field work provided numerous examples of teachers who, in fact, supported a project but who decided not to put their efforts into it because they perceived the district administrators were not interested. They cite the sentiment of one of the respondents on this matter:

> The superintendent had better believe in the project--giving it his personal backing and support. Teacher confidence is essential; teachers should see in the beginning that top administration believe in the project and are committed to it.

McLaughlin and Marsh state the following about the role of the principal:

> The Rand research sets the role of the principal as instructional leader in the context of strengthening the school improvement process through team building and problem solving in a "project-like" context. It suggests that principals need to give clear messages that teachers may take responsibility for their own professional growth. The results also emphasize the importance of principals and school district leadership giving special attention to the task of continuation of teacher change and innovation at the school. Administrative involvement includes early support for the continuation phase of the innovation cycle, administrative participation during the implementation of the innovation, and attention to the organization as well as financial considerations for program continuation.

While teachers' centers are not necessarily promoting an innovation per se, the importance of how principals perceive these centers, especially relative to the professional growth of teachers, appears to be very important. It is likely that for many teachers at least relatively clear messages from the principal are necessary if they are to participate in the kinds of ongoing development desired in so many centers. A recent study by Stallings (1981) examined the relationship between school policy, practice, leadership style, and teacher and student attitude and behavior. Findings similar to the Rand Study evolved. This study was conducted in a number of high schools in the San Francisco Bay area; data were obtained through interviews, questionnaires, and first-hand observations. Major findings were: In schools with more supportive principals, more teachers implemented the training program. Likewise, in schools where policies and rules were clear and consistent, more teachers changed their classroom behavior as recommended. These data support the importance of the expectations of building principals for teachers' professional growth, and the clarity and consistency with which these are expressed.

In a recent case study Judith Warren Little provides a picture of a principal who conceives staff development as integral to school improvement. Little describes in some detail how the principal initiated a major staff development project focusing on mastery learning:

> At the outset participation in the project required an agreement from both the principal and at least 75% of the faculty to participate not only on a weekly basis but over a three year period. Thus, from the very beginning the principal and teachers made a commitment to a venture that was perceived as very important in nature. Second, there was a clear expression of what was expected in terms of the principal's role in this project. The principal in this school was trained to serve as a resource person and to observe the progress of mastery learning in teachers' classrooms and give advice and assist where needed. Third, time was built in for the gradual mastery of new ideas and the practice of new skills. The weekly inservice sessions were designed to introduce new ideas sequentially over time and to allow discussion about ideas before they were translated into practice. The weekly inservice sessions engaged school staff under the demonstrable leadership of the principal in an incremental fashion. Finally, the teacher and principal worked together routinely in the classroom in a collaborative way. (Little, 1982)

This particular situation represents one elementary school with a strong commitment to collaborative staff development. Obviously, schools and administrative relationships vary dramatically. Nonetheless it is apparent that the role of the school administrator relative to teacher growth need not be limited to that of gate-keeper and that a variety of instructional leadership roles are, in fact, possible. While there has not been a great deal of research about the role of or perceptions of roles of principals in support of teachers' centers, there has been some work done in this area. One of the more recent studies was undertaken by Salley (1981) in the Newark Teacher Center. A questionaire survey of some 65 principals indicated strong support for the activities of the Newark Teacher Center. These principals indicated that programs sponsored by the center were of value to them in their school. About a third of the principals in this survey strongly agreed that there were positive changes in teachers in their schools as a result of participation in the Newark Center and further that there was a greater sharing of ideas and materials among teachers in their school.

These data conflict somewhat with a study conducted by Zigarmi and Zigarmi (1979). They identified concerns voiced by administrators about teachers' centers. A major concern was that teachers' centers might undermine established administrative patterns and policies and that a center could facilitate change that is not largely under control of the person who has major administrative responsibilities at the building level.

The conflicting data then underscore the importance of further pursuing the effect of principals support of teacher centers.

D. Assessment of Teachers' Needs and Interests.

As the related research reviewed earlier has indicated, teacher involvement in making decisions about their own continuing education appears to be widely endorsed and related to the extent to which teachers will effectively participate in inservice education activities. Exactly how decisions are most effectively and efficiently made relative to the inservice education of teachers and the exact roles teachers might play in this process is far less clear, however. One way to approach this matter is to examine the type and degree of concerns teachers have. Research in this domain has been undertaken by Gene Hall and his associates at the Research and Development Center for Teacher Education at the University of Texas. They have developed a Concerns-Based Adoption Model (CBAM); their research with the diagnostic tools they have developed has implications for the assessment of teachers' needs. This research has examined the degree and type of concern manifested by teachers about different forms of innovation. Types of concerns are placed on a hierarchy beginning with simple awareness and extending to more sophisticated types of concerns which involve the collaboration of others and the reformulation of problems. A related aspect of this research attempts to diagnose the extent to which people actually use specific innovations and a parallel typology identifying levels of use has evolved from this inquiry. This research, while focusing on innovations, has direct implications for designing staff development programs.

Yarger et al. (1980), in their study of inservice practices and policies, approached the question of needs assessment from a variety of perspectives. They report that teachers, teacher educators of a variety of types, and interested citizens concur in many respects about the needs of teachers. For example, there is no argument from any of these parties that teachers should assume a preeminent role in the needs assessment process. Teacher educators generally don't perceive the variety of roles that teachers might assume in actually providing inservice education; alternatively, teachers see a somewhat more limited role for teacher educators than teacher educators themselves desire. Nonetheless, both parties value what each other can contribute to the process of continuing education. There also seems to be some question by those within the education profession as to just what role those in the community might contribute to the governance of inservice education. However, those community members participating in the study report they would like more involvement than they presently have in decisions about inservice education. Perhaps the major finding in this study, however, is that the diagnosis of teachers' interests and needs must extend beyond ascertaining what the content, at a general level, of inservice education should be. Effective assessment procedures must address the questions of where and when and with whom and under what conditions continuing education should occur. It appears that the involvement of teachers in determining programs of inservice has a long way to go in many situations.

A recent survey by Christensen (1981) also addressed the question of what type of instruction or inservice activity teachers preferred. These data support the Yarger et al. survey and suggest that a variety of instructional formats are desired, depending upon the purposes of the inservice activity. It seems apparent that teachers have for too long and too often engaged almost exclusively in workshop or course formats which were not conducive to the goals they were seeking to achieve.

In another recent study, Byrd (1981) explored the extent to which there was agreement among different role groups about the content of inservice teacher education. Employing a survey methodology, Byrd examined the perceptions of teachers, teacher educators, and school administrators. One of Byrd's primary findings was that administrators and teacher educators tended to perceive the need for greater skill development and awareness on the part of teachers in a greater variety of areas than teachers tended to acknowledge. Surveys of this type again underscore the need to reconcile differences in perception about priorities for continuing teacher education. Since teachers' centers respond primarily to the perceptions of teachers, data such as these suggest that occasionally these needs and interests be examined in the light of needs and goals identified by other key persons in the teachers' immediate environment. Certainly, one can make the case for developing certain activities for teachers on the basis of data acquired by first hand observation in the classroom. Howey (1979) described a number of exemplary district inservice programs in the United States and documented how in certain instances teams of educational personnel observed the teacher and students in the classroom as a means of setting goals for that teacher's inservice education. While this process may be either too costly or too supervisory for some teachers' centers, it nonetheless might be offered as a service teachers would value--providing neutral and collegially-oriented observations by center staffers rather than by colleagues or administrators in the teacher's school.

In summary, the state of the art of determining priorities for teacher's continuing education is perhaps best summed up by the authors of a study conducted by a Phi Delta Kappa commission. They surveyed existing staff development programs in an effort to determine what inservice opportunities are currently being offered to teachers and to learn something of the quality of those programs. The authors of this study concluded:

> First, systems with successful programs make a genuine effort to identify all local needs, wants, or problems that might possibly be met through effective inservice. It is important that this determination not be made unilaterally by an administrator, supervisor, or outside expert. Suggestions from outsiders are acceptable, but the successful program emphasizes suggestions from those who are inservice recipients. To identify local needs, ideas are drawn from a great variety of sources. Methods of obtaining input range from suggestion boxes in the corridors to formal surveys conducted by private consulting firms. Some combination of formal and informal solicitation is probably best, but it should emphasize the the views of sources inside the system. (King, Hayes, and Newman, 1977).

The variety of approaches to assessing teachers' needs and interests examined and reported in the 14 studies supports the need for a variety of approaches and provides further data about how various types of individual and groups of teachers' concerns are revealed.

E. Governance and Collaboration

The study of federally-supported teachers' centers conducted by Mertens and Yarger also provided data about the governance and staffing patterns of teachers' centers. Policy boards in these centers (with an average membership of 21 persons) have apparently functioned both effectively and relatively efficiently. Teachers in most instances represent more than a simple majority on these boards as required by federal legislation. While the policy boards are very concerned with project management--40 percent of these boards' decisions are characterized as focusing upon this topic--the boards also invested considerable time in program matters. Approximately one-third of the decisions by these federally-supported teachers' center boards were characterized as being concerned with program matters. These center policy boards commonly set broad policy guidelines and at the same time are able to involve themselves in day-to-day operational decisions. In summary, it would appear from this study that teachers' majority participation in governance of centers has facilitated achievement of their goals.

One can readily see that questions regarding governance--how resources are to be spent--are in many respects related to questions regarding the assessment of teacher needs for inservice. Hauserman (1977) has identified a typology of power bases utilized in inservice training, especially in governance arrangements. The type of power bases he identifies include coercive, legal, referrent, and reward. Teachers' centers would generally fall under the referrent form of governance, which suggests that needs must emerge from the clients and that a cooperative approach is the type of decision-making that should be employed for inservice education. Hauserman's typology is one way of conceptualizing different types of governance structures. Using this typology one can compare teachers' centers with other types of decision-making about teachers' continuing education.

One of the 14 studies in this report was done by a center in which there was intensive community involvement. The type of community participation that is most desirable, feasible, and efficacious in planning for teacher improvement is a relatively unstudied area. However, there is one major study of governance arrangements involving those in a local school community working closely with teachers in decisions about continuing education. The Urban/Rural School Development Program was initiated in the early 1970s in 25 of this country's poorest communities, where school children were achieving at extremely low levels. This program gave the responsibility for making decisions about the use of federal monies to School Community Councils with approximately equal representation between educators and lay persons in the community. An evaluation of this national program at the conclusion of five years suggested the following:

> 1. School community councils with approximately equal representation of school officials--mainly teachers--and community people can be established and can achieve parity in structure and operation in making decisions about inservice education.
>
> 2. The work of such councils, through shared decision making by the main parties affected, has a positive effect on morale in the district; improves the variety, quantity, and quality of inservice education; and, where the evidence is available, leads to better learning by students.
>
> 3. The communities, after six years and termination of federal support, are trying to carry on and to incorporate the experimental work into the regular school programs. (Joyce, 1978)

In summary then, studies of governance of teachers' inservice education have been relatively rare to this point. However, the studies that have been conducted are provocative. There appears to be a very interesting contrast between strong teacher participation in governance and more traditional administrative forms of decision making about inservice. But the possibility of modifying the governance structure in the other direction--to include the more extensive involvement of those in the community--raises interesting questions as well. For example, in a significant study of parental involvement by Becker a number of years ago it was found that teachers tended to react to forms of parent participation in ways that preserved their own control and status in the institution. The extent to which this finding would hold today is unclear. So the question of how teachers can assume greater control over their own continuing education and still work in a manner that is responsive and responsible to the public (or those whom the public has designated as legally responsible for administering schools) is a question that is central to the evolution of teachers' centers, and certainly one which deserves more study.

We conclude this section where we began. Research into the continuing education of teachers is not extensive and that into teachers' centers even less so. Nonetheless, much of what has been reported in studies that have examined common practices and have solicited the perceptions and preferences of those associated with inservice education tends to support those practices that characterize many teachers' centers today. This is not to say that we do not have much to learn in terms of what exactly takes place in teachers' centers, let alone how to improve them further. The research conducted in the 14 projects is significant in several respects. First, it addresses some major gaps in the previous literature. For example, needs assessment, the involvement of key administrators, the effect of various governance structures, and the characteristics of different types of teachers' networks as features of teachers' centers have been studied little. Second, the 14 studies are significant in that they have involved teachers themselves in various aspects of the research process and thus reflect a new form of inquiry as well as inquiry into largely unstudied questions. We hope that this brief review of related research will provide an appropriate perspective for understanding the research conducted in the 14 projects.

III. RESULTS FROM FOURTEEN RESEARCH PROJECTS: ANALYSIS AND SUMMARY

This section of the report briefly describes general findings from the 14 research projects; summaries written by each projects' staff are included in Appendix D. The research findings are discussed in terms of major themes and related questions across the various projects. Although they could be organized in a variety of ways, we have chosen to discuss them in terms of the following general topics:

(A) Characteristics of participants (and non-participants)
(B) Responding to individual teacher requests for help outside the center
(C) Interacting with teachers in the center
(D) Teachers' center relations with other key persons
(E) Assessing teachers' concerns and needs
(F) Teachers' centers governance

Before we summarize data from the various projects, we should say a few words about the research methodologies employed in these studies. Both quantitative and qualitative techniques were used, often in a single research project. For example, in the study undertaken at the Northwest Staff Development Center, qualitative techniques including clinical interviews and document analyses were combined with descriptive quantitative analyses of the characteristics of center participants. However, given the emphasis on collaboration in these studies, it was common to employ qualitative data collection techniques that incorporated a variety of perspectives. This was accomplished through what can be characterized as ethnographic methodologies. These relatively in-depth approaches, while allowing the investigators to gain multiple insights into individual teachers' centers, obviously do not allow for generalizations about teachers' centers collectively. This does not detract from the importance of these inquiries. These more fine-grained portraits of specific practices and types of participants in teachers' centers can be examined alongside the picture that evolves from surveys of policies and practices across many centers (such as the Yarger and Mertens study reviewed in Section II). Both forms of research are needed and in many ways they complement each other. Certainly there is a need at this time for well conceived descriptive analyses of teachers' centers practice and characteristics.

A. Characteristics of Participants.

Three of the projects examined the characteristics of teachers who participate in centers. The centers were the Teachers' Active Learning Center in Oakland, California, the Teacher Center, Brookline; and Project RISE in Colchester, Connecticut. There were some important differences in the data generated in these three studies. In the case of the Brookline and Oakland studies, the collaborative research teams concluded that there were no important demographic or philosophical differences between teachers who took advantage of those centers' services and activities and Brookline and Oakland teachers in general. (The one difference was that elementary school teachers tended to use both centers more than secondary school teachers.) A major finding from both Oakland and Brookline is that the centers serve as an important source of information and a valued place for professional and personal growth for all types of teachers. Even when centers are characterized by a belief system or set of values as to how both children and adults best learn, they nonetheless accommodate teachers who differ in their conceptions about their own as well as their students' learnings. Further, these centers do not seem to be more attractive to teachers as characterized by age, gender, or any other demographic data. (This was not the situation, however, in Connecticut; we will speak to those data shortly.)

In Oakland, the research team interviewed frequent users of their Center in an effort to gain insights that could be used in planning. Their selected sample of teachers was drawn to approximate a cross-section of actual users (which they had documented over the years). These documentation records indicated that frequent users of the Center closely resembled a cross-section of teachers in the Oakland Public Schools in terms of such factors as age, neighborhood, ethnicity, and years of experience. The ratio of elementary to secondary school teachers who used the Center was approximately three to one.

One of the most interesting findings in the Oakland study is how the teachers' views of teaching and learning in their classroom (as revealed in the in-depth interviews) tended to correspond with the way these teachers described changes in their own professional development. For example, an emphasis on interrelated, multiple aspects of the child was associated with a similar multi-faceted view of their own growth and development. On the other hand teachers who saw learning in the classroom to be largely a consistent and orderly coverage of subject matter, tended to speak of their own growth in terms of seeking more and more information. The Center was perceived as equally valuable by teachers having these quite different orientations. Favorable assessments of the Center appear to stem from the fact that the Center was able to accommodate these differences.

This finding underscores the responsive and individually-oriented nature of many teachers' centers including those in Oakland, Brookline, and Colchester. While staff at these Centers have the expressed goal of stimulating teachers toward more conceptually complex thinking and teaching over time, they also accept teachers' own contexts and offer immediate and practical help.

The description of "active staffing" that emerges from the research project at the Chicago Teachers' Center provides an excellent description of how experienced teachers' center staff move from a responsive posture, attending to immediate needs, to a longer-term, developmental type of interaction with teachers. This is an important contribution to the literature for it clearly illustrates how a center can be more than an ad hoc collection of individually-oriented activities.

Unlike the Oakland study, the Brookline and Colchester studies contrasted users of the center with non-users. Does some special subset of teachers, recognized by certain ideological or socio-demographic characteristics, use a center more than other groups? The answer is apparently no. Although there are differences in participation of secondary and elementary school teachers, on all other characteristics participants appear quite similar, including the ways in which they view children and curriculum. Again, it appears that an effective center (interviewees in the three studies uniformly stated their centers were effective) is able to accommodate a variety of teachers. The studies do raise questions as to whether and how centers affect teachers' attitudes and perceptions over time.

The major purpose of the study in Connecticut was to examine the perceptions of teachers in a small sample stratified by gender, experience, and degree of Center use. Teachers were identified as frequent users, occasional users, or non-users. The focus of the study was an examination of these teachers' beliefs about inservice education generally, and the RISE (Regional Inservice Education) Center specifically. Some basic differences were found between those teachers who frequently participated in Center activities and those who chose not to. This should not be interpreted as meaning that the Center is unable to accommodate basic differences among teachers, but rather that there were some common characteristics of those who chose to use the Center. For example, frequent users tended to speak of inservice education in terms of a human growth orientation, while non-users talked about inservice education in terms of repairing deficiency. Somewhat surprisingly, frequent users apeared to be less satisfied with their present teaching roles and/or assignments than those who did not use the Center.

Some commonalities did emerge between users and non-users. For example, the need for control and a desire for respect permeated all interviews. The primary investigator writes: " . . . Underneath these empassioned expressions is the broader, more powerful issue of control; in one's personal developmental growth; in one's classroom/school; in one's personal life." A major theme in the findings of this investigation concerns control and teachers' feelings of power and powerlessness.

A number of contextual factors may help explain the apparent contradiction between the Brookline and Oakland studies and the Colchester study. Project RISE is a separate project serving teachers in nine small rural districts. The teachers' centers in Brookline and Oakland both were embedded in a single larger urban district. In both of these latter situations, accessibility to the center was relatively easy. One assumes that, given the resources of a large district and a large urban area, the teachers in Brookline and Oakland had the opportunity to engage in a wider variety of inservice or staff development activities. In contrast, the substantial majority of all three types of teachers in Connecticut equated curriculum development with the selection of commercial textbooks, suggesting a limited prior involvment with curriculum development.

The dissatisfaction with teaching, which appeared so prominent in the Connecticut study, may also be attributable to the research methodology employed at that site. The phenomenological methodology interprets situations within the subject's context. This means that it is likely to uncover concerns that other methods of inquiry cannot perceive.

Whether the dissatisfaction of these teachers is more related to a set of conditions in rural eastern Connecticut or to the methodology used is unclear. but the suggestion that highly dissatisfied teachers would gravitate to a specific teachers' center is provocative. Among other things, this suggests that teachers needing psychological support for their work may seek that support from a Center that exists outside the bounds of the district with which their frustration tends to be associated.

B. Responding to Individual Teacher Requests Outside the Center.

Two centers examined the manner in which individual teacher requests for inservice education outside the center were provided. These two centers were the St. Louis Metropolitan Teacher Center and the Northwest Staff Development Cooperative in Livonia, Michigan. In the Livonia Center individualized services included forms of assistance that were requested directly by teachers or administrators by using a "Request for Services" form. These forms were distributed to each of approximately 100 schools in the seven districts served by the Center. More than 2000 requests for some form of individualized assistance had been received by the Center in the three years prior to the study. The research project focused on characteristics of teachers who requested individual services, the types of services they requested, and their perceptions of the effects of those services. Seventy-eight percent of those teachers interviewed indicated that they had considerable control over their own learning and professional development; almost 85% thought their involvement with the Center had made a substantive different in their classroom. It is interesting to note that 83% of those interviewed indicated they intended to stay in teaching until retirement: perhaps this is a condition related to the Michigan context. Or possibly it suggests that teachers who request individualized services are more satisfied with their careers, although this is not tested. The Livnonia data do not reveal what other teachers in that area intend with regard to their careers. Further research into the relationship of activities selected and certain teacher characteristics could be helpful.

Other findings in the Livonia study include the importance of a teachers' center advocate in a school building. This advocate may be a teacher, an administrator, or a specialist. Informal networking evolved among recipients of individualized services or awards from the Center when an advocate was present in the building.

The data on the popularity and impact of these awards are important. Many school districts have limited financial resources available for professional development programs. Further, there is increasingly a conception of district-sponsored staff development as synonymous with buildinglevel, school improvement efforts, and these programs have more political appeal than those which are more individually oriented. There is a very real danger then that individualized service programs will be seen as a frill. However, as the study conducted at the School Resource Network in Ventura, California demonstrated, individual teacher needs and concerns have to be attended to, as well as school-wide collective ones, or enthusiasm for the collective approach will quickly wane. Certainly, there will always be effective teachers who struggle to maintain their enthusiasm and competence within relatively ineffective schools. The Livonia study demonstrates the possibility of a school district supporting some form of individualized staff development with relatively little cost and effort. Most of the services provided by the Livonia Center were in the form of monetary awards that rarely exceeded $50.00. This seems a bargain price to pay for the sense of empowerment reported by teachers served by the Center.

The literature is replete with testimony that teachers are more likely to employ ideas and materials if they had a role in their development. In the St. Louis Center the research focused upon a Minigrant Program that provided funds up to $750.00 for individual teachers to use in developing a wide variety of classroom-oriented projects. An in-depth analysis of approximately 50 mini-awards was conducted. Interviews with participants revealed several interesting findings. Teachers did make extensive use of products and ideas they developed. And they were able to develop projects that had implications going beyond the classroom to the entire building, and in some instances, the entire district. As would be expected, teachers who were given money and support reported high levels of satisfaction and a sense of accomplishment. Also not surprisingly, they developed projects anchored in the realities of their classroom and responsive to the needs and interests of their students. Perhaps most important, however, is the strong suggestion that teachers can, indeed, influence change and innovation in other classrooms, as well as their own, through projects they design at minimal costs.

One teacher, for example, developed a project that was eventually utilized by teachers throughout her district. The project was not initially intended for use by others, but it was adopted by other teachers because of the quality and utility of the final product. A brief quote from the teacher who developed this project provides some insight into the kind of pride and dedication teachers felt:

> I'm sort of, I guess what you would call an old-fashioned teacher. When I go into something like this I like to approach it with some kind of a beginning and end in mind. And I not only saw the beginning and end in my own mind, but I saw it happen in the

> book we drew up. It's a nice little packet, I think. I'll be interested if it's used; I really feel very satisfied.

C. Interacting with Teachers in the Center.

One type of interaction between staff and participants was examined in some detail at the Chicago Teachers' Center. That staff refers to the interactions as active staffing. The active staffing process is a developmental one in which four distinct phases occur. In the first phase, an emphasis is placed on developing rapport and respect, while at the same time responding to the expressed needs or concerns of the teacher. In the second phase, the staff member probes more deeply to help clarify underlying reasons for the manifest request or visit to the Center. It is during this stage that the focus for further mutual inquiry is generated. The third phase of the process moves into joint problem solving procedures in which a variety of resolution strategies are employed. Finally, there is a critical follow-through stage in which teachers' center staff are either involved in the teachers' classroom or the teachers remain in contact with Center staff at the Center. The focus here is on specific classroom outcomes. Throughout these four phases there is an emphasis on mutual responsibility for growth. That is, the teacher increasingly has to assume responsibility for thinking critically about teaching and learning and the meaning of his or her classroom activities; the staff person has to use his or her experience to know when to pull out knowledge from that teachers' experience and when to insert new insights and challenges.

This concept of active staffing was documented through extensive observations of one staff member working with teachers. Detailed logs were kept as the primary data base for the study. Various interview and questionnaire data were also used.

At the Workshop Center for Open Education (WCOE) at City College of New York, the staff also assume a very active and sophisticated role in their interactions with teachers. However, the research in this instance used the complex physical setting of the center as the focus for inquiry. Just as active staffing leads a teacher to move beyond immediate problems to a more reflective analysis of his or her teaching, the physical setting of a center can also have a profound influence on teachers' professional thinking and decisions to change the way they work. "Interpenetration of use" and "density of setting" are terms employed to define and explain how teachers become involved in and contribute to the Center over time.

Interviews in this study revealed that participants in the Center were keenly aware of a great deal of prior activity, exploration, and thinking on the part of other teachers, which had been incorporated into the center's rich physical setting. They saw how the learning experiences of other teachers had resulted in learning materials for their own classrooms and for the Center. These myriad resouces, however, were not simply a collection of curiosities or a random display of completed work. They were invariably perceived as part of an integrated concept of how children and adults learn. As one teacher commented:

> Well, I would have to say that the atmosphere was deliberately created, organized . . . I mean, I don't think it's a haphazard approach. I think the Center does give you a visual plus a psychological thing when you walk in here. It's not just flung together.

Participants in the Center reported networks or connections between different aspects of the setting and how different persons and groups used the Center. They employed these connections to create new possibilities and uses for themselves. Through activities such as browsing, observation, and various workshops using hands-on materials, the density and richness of the setting continued to evolve. Materials and resources were not only presented in abundance but in interesting and often unexpected juxtaposition. The WCOE research team has provided a provocative initial inquiry into how the physical environment of a center can stimulate the professional thinking of teachers.

A third, related study was conducted at the Philadelphia Teacher Parent Center. This Center assists teachers in constructing a variety of resources for their classrooms. The staff of the Center employ machines and tools and design kits to assist teachers, parents, and aides in making instructional materials and educational furniture. The research team asked a sample of center participants how the items each had produced in the Center were valued and used over time, in classrooms. They concluded that things teachers made in the Center were used frequently, and often for relatively long periods of time. Further, new uses for items emerged and physical settings of classrooms were transformed through the ingenuity and creativity of teachers inspired and helped by Center staff.

Teachers tended to make almost twice as many items as they had planned or anticipated when they first came to the Center. Not just the raw materials, but the physical context of the Center, and the ways in which the Center staff assisted participants, influenced teachers. Although some of the items constructed were the participants' original idea (18%), the great majority of participants were persuaded, either by the staff or by one of the many displays in the Center, to make something different from their original intent.

As was the case at WCOE in New York and at the Chicago Teachers' Center, the Philadelphia research project describes and validates [illegible] physical setting that is educative by design and a staff who probe beneath teachers' presenting problems. The question of how environmental context enhances teachers' personal and professional growth and leads to alterations in their own classrooms is an intriguing one.

D. Teachers' Centers and Other Key Persons.

One of the most important persons with whom a teacher works is the building principal. The role of the principal in making schools effective has been demonstrated to be critical. Yet the relationship between teachers and principals varies widely from teacher to teacher and from one building to another. There is a common perception that there has been a reduction in the sphere of influence of principals as a result of the increase in teacher activism, especially through collective bargaining. One of the areas in which teachers have exerted more influence has been their own continuing education. Since staff development has traditionally been controlled by local administrators (and to some extent colleges and universities), the teachers' center movement has the potential for further straining relationships between teachers and administrators. Thus, the study of the roles principals assume relative to teacher involvement in teachers' centers is important.

Working with centers in Albemarle, North Carolina and Atlanta, Georgia, a collaborative research team concluded that teachers frequently participate in Center activities with no overt support from their principals. On the other hand, they concluded that lack of endorsement by principals can constrain teacher participation in the Centers. The *perceptions* of teachers about their principals' support of the Center are important, especially since it appears that in many situations principals report they are more supportive than teachers believe them to be. This suggests a more explicit role for the principal relative to centers, albeit one that respects the principal's own inservice agenda. Most principals seemed to feel the center had little to offer in service to their own agendas for teacher improvement. Perhaps centers should do more to interpret their programs to principals.

While principals at times are important sources of information about Center activities, this research project concluded that the most common and important source of support and endorsement is word-of-mouth among teachers. This perception is also supported by the research conducted at the Northwest Staff Development Cooperative. In Livonia, almost a quarter of the respondents reported that principals encouraged them to participate in Center activities, although in a great many situations principals did not provide such support or even have knowledge of the possibilities offered by the Center.

Again, the appropriate role of principals in teachers' center activities is not clear. Certainly their unrestrained endorsement may not be what is most desirable. For example, one teacher in the Albemarle/Atlanta study reported:

> Sometimes it is the kiss of death if the principal suggests that the Teacher Center is a possible place for teacher improvement.

One might speculate that principals are a greater potential force for constraining teachers' involvement than they are for enabling it. Whatever the situation, given the critical role of principals in schooling, certainly more study is warranted in this area.

A research team in Charlotte, North Carolina collaborated in a study of how the Charlotte/Mecklenberg Teaching Learning Center (TLC) was used and supported by 85 Coordinating Teachers, each assigned to one school in the district, as a non-supervisory helper and consultant to teachers. This study reinforced previous experience that there are fundamental differences between elementary and secondary teachers' use of teachers' centers. In this specific situation, elementary school Coordinating Teachers assumed more of an advisory role in working alongside teachers on matters of curriculum and instruction, while those assigned to secondary schools saw themselves as managers and subject matter experts.

The Coordinating Teachers who assumed the advisory role tended to draw on the Center frequently to assist teachers in their buildings, while those working with secondary teachers did not. Thus, school context as well as role orientation can affect the participation of key persons in a center. However, the study found actual teacher attendance at the Center is facilitated primarily by other teachers. This investigation illustrates the myriad relationships that can exist between a center and other agencies within a district. In this particular situation, if the Center were to attempt to make its services more attractive to the secondary school Coordinating Teachers (and secondary teachers), it might run the risk of compromising its attractiveness to the elementary school Coordinating Teachers. Because other centers report that they are able to attract and satisfy a considerable variety of teachers, more investigation may be needed to identify the actual constraints to fuller participation by the Charlotte secondary school teachers.

Another research project that speaks to this topic was conducted at the Education Resource Center in Chicago. That Center exists independently of any public school system and serves not only teachers but other members of the community as well. Their research investigated costs and benefits of being an independent community organization. Big costs are vulnerability of programs and staff to vicissitudes of funding and ambiguity about identity--are they for teachers as professionals or for community people as amateur teachers and continuing learners? Organizational flexibility and insulation from the constraints of the school district administration are benefits identified. Thus the Education Resource Center philosophy of learning is not threatened by the dominant norms of a large, bureaucratic system, but they do face the imperative to alter programs as funding sources and community interests change. Their philosophy thus is still vulnerable.

When a center serves only teachers, the issues are much less complex. Serving a wider constituency requires attention to the interests and needs of many other people with differing educational roles. In this sense both the public school based center in Charlotte and the community based center in Chicago--both serving other constituencies besides teachers--share a similar situation: being sensitive to people with varying roles results either in multiple and flexible program focus or in a decision to serve fewer constituencies.

E. Assessing Teachers' Concerns and Needs.

Almost all teachers' centers ask individual teachers what they consider to be their own needs for professional improvement what they would like to get from the teachers' center. A variety of techniques are employed. Perhaps the most frequently used procedure is simply to attend to what teachers say and do while they are engaged in activities at the center. Results from the Chicago Teachers' Center, the Philadelphia Teacher Parent Center, and the CCNY Workshop Center offer examples of how skilled center staffers engage in a continuing informal needs assessment. Many centers, however, also conduct more formal and systematic needs surveys. Two common methods are a checklist of possible goals and activities analyzed by a computer, and structured interviews combined with open-ended questionnaires. The Ferguson (Missouri) Teacher Center employs a highly developed formal needs assessment procedure. This activity is built into the annual goal-setting and problem solving scheme of the school.

The collaborative research undertaken in the Ferguson project examined the results of informal interviews and contrasted these with the results from a computerized checklist. The investigators focused on how particular teachers' participation in Center activities was related to the needs they expressed in the two different assessment procedures. The investigators reported that the informal interviews provided rich, concrete, and individualized information that the center staff found difficult to generalize and follow up on, as its program was geared to group workshops or school site problem solving. The formal checklist provided information that was more useful in predicting what group activities teachers would actually select. This research provides some insights into the best use of both types of procedures. The research also reveals the considerable effort that must go into either type of assessment in order for it to be successful. For example, they indicate how previously completed research, theoretical constructs, data from informal interviews with teachers, as well as data on pupils, can be incorporated into the formal surveys.

Another type of assessment activity was studied at the School Resource Network in Ventura, California. The research team examined a scheme designed for the center staff's counseling with entire school faculties at the school site in identifying individual and schoolwide problems and planning subsequent staff development activities for the school. The procedure revolved around a Facilitator Team--three teachers and/or administrators from other schools who met with the school faculty and guided them through a structured process. This school-based assessment process was based on the assumption that teachers should be fully involved in the entire process and on a voluntary basis.

The study revealed several interesting problems with this rather ambitious assssment procedure. One of the important findings was that teachers perceive or define staff development in different ways. Some teachers defined staff development quite literally as the staff collectively working to resolve a particular problem at the school site. For others, it was seen more generically as any activities designed to assist teachers and especially activities teachers could use to fulfill individual needs. These fundamental differences in perceptions contributed to different degrees of support for the all-school procedure. The investigators concluded that individual as well as collective needs must be considered. Again, the role of the school principal is critical. The danger of this person assuming a preemptory function in the school assessment process is considered in this study. The issue of individualized and informal assessing of needs is not resolved by these studies; both agree it is costly and time consuming. Both also agree that informal procedures yield valuable results.

F. Teachers' Centers Governance.

When the United States Office of Education first developed regulations for funding teachers' centers, a major concern was the governance of those centers. In order to qualify for federal support, a center was required to operate under the supervision of a policy board on which classroom teachers constituted a majority. These teachers were to be representative of all the elementary and secondary classroom teachers served by the center.

Some existing centers had such a board; most did not. The regulation clearly made governance and teacher control an issue, and it was thought that this would be a topic of strong interest, generating many research proposals. Yet only two proposals were submitted on this topic; one was supported. Perhaps the governance issue was not considered to be as important as was thought.

Alternatively, the issue may have been settled for many centers simply because the regulations were so explicit and final.

The Detroit Center for Professional Growth and Development presented an interesting case: for five years it had been governed by a five-member board that operated by consensus and was representative of the teachers' union, the school board, the administrators organization, the intermediate district, and Wayne State University. In 1980 that Center received federal support, and a new eleven-member board with a teacher majority was established. Because the Detroit Center had kept careful records of all board meetings, as well as extensive documentation of Center activities, the opportunity was available to examine the effects of the change from consensus to majority decision making.

Few changes in Center procedures were noted. The efficiency of meetings declined as it became more difficult for full attendance to be achieved. Release time for board members became an issue, but this was the only important change. Teachers' evaluations of Center programs were consistent over time. Changes in program were attributed to shortage of money rather than to board policy. The board expressed the same goals as before, and attended to the same problems. Most of their concern was with financial support; both boards delegated authority for program development to Center staff, which remained constant when the board changed.

This situation may not be typical of all teachers' centers; other policy boards may be more active in program decisions. And the Detroit case may not be illustrative of what might occur in other centers if teachers become majority (or minority) members of a board. But it does represent a rather surprising finding, suggesting that a supervisory board with a majority of teachers may not be so very different from a board without that majority, so long as the board is attentive to the concerns of the participants and selects and retains good staff.

Nonetheless, there does appear to be some relationship between the size of the board and the number of meetings conducted. It may also be that the analysis was not fine-grained enough to discern more subtle but important changes that occurred in these meetings. In this situation, and likely in many teachers' centers, the policy board is primarily concerned with economic solvency and the establishment of general guidelines to insure that teachers' needs and concerns are accommodated. The basic responsibility for translating these policy decisions into programmatic terms is left to the center director, putting this person in a very critical position. This relationship between policy and program is deserving of more study, as is the key role of those directors who are responsible for the administration of general policy decisions.

This concludes our brief overview of research findings from the 14 projects. Their inquiry was supported at very modest levels; it allowed teams of practitioners and researchers to examine questions of importance at specific centers. It would be unrealistic to expect startling new findings, but many of the tentative findings are provocative. It appears these collaborative research efforts have excellent potential, but they are not without problems. We discuss this collaborative process in the next section.

IV. THE COLLABORATIVE PROCESS

A. The Nature of the Collaborative Research Process.

When the Announcement of Awards for support of research on experienced teachers' centers was released in 1978, it called for collaborative research.

> "The intent of the program is to award...subcontracts or agreements to conduct research that is collaborative in nature and that will explore exemplary practices in experienced teachers' centers. Such research should be of direct use to those who operate or otherwise support experienced centers as well as to newer teachers' centers which are developing programs. To accomplish this research, collaboration between researchers and practitioners is needed. This requires the participation of staff members and participants from experienced teachers' centers with a reputation for success, and the participation of skilled researchers who can collaborate with these practitioners on mutually agreed-on procedures."

By intent, the exact nature of the collaboration was not clearly defined; the expectation was that several forms of collaboration would be proposed. This turned out to be the case. The criteria for evaluating proposals included reference to the "degree of collaboration between researchers and practitioners in preparing the project application, and the strength of plans for continuing collaboration in carrying out the study." Every proposal addressed the issue of collaboration. In this section we will identify some of the collaborative arrangements that were present in the 14 research projects. Our intent is that readers will be able to identify collaborative mechanisms appropriate for their own situation.

For most educators who have been involved in what they consider successful collaborative research, one criterion is most important: parity among the participants. For example, the Interactive Research and Development on Teaching (IR & DT) strategy employed by the Far West Laboratory for Educational Research and Development defined collaboration in this way:

> . . . collaboration is viewed as teachers, researchers, and trainer/developers both working with parity and assuming equal responsibility to identify, inquire into, and resolve the problems/concerns of classroom teachers. Such collaboration recognizes and utilizes the unique insights and skills provided by each participant while, at the same time, demanding that no set of capabilities is assigned a superior status. It assumes a work with rather than a work on posture--the latter, in the opinion of the authors, being more frequently the modus operandi when teachers are asked to join researchers or trainers/developers in a linear research and development endeavor. (Tikunoff, Ward, and Griffin, 1979).

This definition of collaboration was what the Exchange had in mind for the teachers' centers research projects. However, there have been several successful efforts at collaborative research in education; not all of these efforts could be characterized as including the full involvement of all participants. The Institute for Research on Teaching identified five roles that teachers might play in collaborative research. These included serving as a model of teaching for researchers to analyze; serving as a model and a participant, in which teachers' behavior is observed and, in addition, teachers receive feedback from the observer that in turn may lead to reformulation of the research question, serving as a data collector, in which teachers collect data and discuss and interpret the data with the researcher, serving as coinvestigator on the project, in which teachers participate in all stages of the research effort, and serving as a practitioner consultant, in which teachers describe and analyze the teaching act and assist the researcher in formulating and conducting the research. (Kennedy, 1979)

In the 14 research projects included in this report, teachers or teachers' center staff almost always served as data collectors, and sometimes served as co-investigators. Often other teachers or staff persons were used as models, as model participants, or as consultants. However, in all of the projects, even when parity was not present, collaborative research was valued for one very important reason: incorporating multiple perspectives (researchers, teachers, and teachers' center staff members) resulted in an outcome that exceeded the sum of the individual contributions.

During the collaborative research process, researchers may be frustrated by the practitioners' focus on matters of immediate and practical concern. Similarly, practitioners are likely to be frustrated by researchers' efforts to analyze, to go slowly in reformulating questions, and to be less concerned with reaching practical solutions early on in the research. This struggle between the two types of participants is an important one, for it informs both, and it allows both to understand the perspectives of each other. In addition to the advantage of enhancing the research results through the inclusion of perspectives of practitioners and researchers, collaborative research has the potential advantage of being seen as more practical by the practitioners who ultimately will use the results. The intent of the research program was to involve practitioners not only because their perspective was important, but because their inclusion in the research would help other teachers' center practitioners to immediately see the relationship of the research to their own situations.

There was an additional benefit to be gained from the collaborative efforts. Through the interactions that occurred on the research teams, participants were able to identify the importance of the activity for their own professional growth. They were able to see other perspectives more clearly, and to gain insights into their own practice (either as researchers or as practitioners) that they would not otherwise have seen. During the summary conference at Wingspread, several participants attempted definitions of collaborative research. These definitions reveal a view of their research that is slightly different in emphasis from a focus on achieving richer results.

> Collaborative research is a process in which the parties involved work together on an equal basis. This sounds deceptively simple but it's very hard as we are all caught up in our personal and professional histories and social perceptions of others.
>
> It is systematic inquiry into substantive, important, humanly real issues undertaken by skilled, flexible, creative researchers working as a team with curious, knowledgeable, honest practitioners.
>
> I found it to be a lot like pluralistic forms of education; that is persons of dissimilar background working together with equal status on a research problem of joint interest. Different participants may be interested (and skilled) to different degrees in different aspects of that research problem.
>
> This form of inquiry recognizes and respects the theoretical base of practice and therefore grows from that practice and continually returns to it in a spiral that binds "researcher" and "practitioner."
>
> The key is mutually beneficial outcomes. The interaction which evolves thus defines collaboration; it is obviously not just putting people together. It is a process in which the strengths of all participants are drawn upon and all have a real vested interest in the outcome.

Discussions with those who participated in these joint research efforts reveal several common themes. First, there is equality in status in the endeavor and a respect for the different contributions that each person is able to make (rather than the notion that each person contributes equally in all tasks). Second, dissimilarities are viewed positively, however difficult that may be, as multiple perspectives that can contribute to defining the problem, identifying how it can best be investigated, and interpreting data. It is more than a procedure of shared or divided labor. Third, collaboration occurs in the dialogue between participants while negotiating a problem of mutual interest. Finally, the emphasis is on systematic inquiry. The intent in these 14 projects was to advance knowledge about teachers' centers by insuring that the insights and reality of the practitioners was incorporated into the research. That there was concomitant growth by participants should not detract from the primary purpose: generating knowledge to be shared in the public domain. It is, however, an important outcome. The use of research as a vehicle for professional growth now appears to us to be especially valuable and deserving of continuing efforts.

B. What Forms of Collaboration Occurred?

In some of the 14 projects roles were not clearly defined. Sometimes the person identified as researcher and the person identified as teachers' center practitioner together performed all of the research activities with equality of effort and with equality of responsibility. In a few cases, a teachers' center staff person appeared to assume the role of primary researcher. However, in most cases it is possible to identify the roles served by the various participants. There are three broad categories into which role assignment in these collaborative efforts can be classified. The first is research projects in which a person identified as researcher assumed almost total responsibility for conceptualizing the problem, analyzing the data, and preparing the final report. A second category includes those projects in which one person, identified as the primary researcher, did most of the data analysis, but relied on others to contribute to the data and to react to the analysis being suggested by the researcher. Finally, there were situations in which the researchers and practitioners worked with almost complete parity. This often involved both teachers' center staff persons and classroom teachers (who were participants in the center) as data collectors and sometimes as participants in the analysis process.

In seven of the projects researchers and teachers' center practitioners were involved with almost complete parity. For example, in the research project conducted at the Teaching Learning Center in Charlotte, North Carolina, a university professor, a staff member of the center, and two Coordinating Teachers met together to develop a proposal for the research. The research focused on the role of the teachers' center in working with Coordinating Teachers (district staff who are assigned to specific schools to assist teachers by serving as advisors and resource persons). When the research was begun, a second university person worked with the Center staff person in planning the research tasks. Coordinating Teachers worked with this professor in learning how to conduct interviews of the type desired, then conducted interviews with other Coordinating Teachers (their peers), and participated in the analysis. The final analysis of data involved two university researchers, a teachers' center staff person, and eight Coordinating Teachers. Although final decisions about the content of the report rested with two persons who served as principal investigators (one from the Center and one from the university), the entire report was read, critiqued, and revised by all participants in the research effort. This involvement developed considerable support within the school system, to the point that the system continued to support the research effort even after funds from the Far West Laboratory were expended. The experience of analyzing the importance of the Teaching Learning Center for their own professional lives, as revealed through interviews of their peers, contributed much to the professional growth of the Coordinating Teachers. This experience may be what prompted the university researcher from this project to comment, during the Wingspread meeting:

> "We're not talking about valid generalizations in this research so much as we're talking about reflective practices. Collaboration and research constitutes staff development."

And the teachers' center staff person commented:

> "It is not impossible to be in a situation and to study at the the same time. It provides a vision that goes beyond one's regular orientation. It allows time to reflect. It encourages a practical way of combining theory and practice. It gives a double vision that leads to a fuller understanding of the situation."

Similarly, the research conducted at Albemarle, North Carolina, and at Atlanta, George (a joint project) involved a number of people. Although a university-based researcher served as coordinator of the entire project, he never worked alone. The two teachers' center directors were identified as principal investigators of the project. Each of them also had access to another university-based researcher (one in Georgia and one in North Carolina) as consultants. Other Center staff were involved in analysis of data, and a total of 10 teachers were trained in interview techniques and then interviewed principals in their region. As was the case in Charlotte, one person wrote the final report, but this occurred only after all other involved persons had an opportunity to critique several earlier versions.

In this instance and in others it was clear that although teachers were not equipped to begin the process of research on the selected topic, they were able to gather data in the field and to assist the researchers by providing different perspectives on the interpretation of those data. As a result, they gained familiarity with and interest in analytic and reflective approaches to their own teaching. At the Teacher Center in Brookline, Massachusetts, a university-based researcher and the director of the teachers' center collaborated in producing the proposal submitted to the Far West Laboratory. Before submission, they sought the advice of two teachers who were participants in the teachers' center. The crux of the project was a seminar in which 12 Brookline teachers enrolled to learn research methods and to design a study comparing the participants using the Center with other Brookline teachers. Then they interviewed fellow teachers, prepared the data in raw form, and assisted in its interpretation. However, the two directors of the project (the director of the Center and the university researcher) prepared the final analysis of the data. One of them wrote:

> The great advantage of the collaboration was in the far richer fabric of ideas and concerns woven by the seminar in the design of the interview schedule. The interviewing was the most stimulating experience for participants although it may have suffered some by inexperience--blank tapes, inaudible voices, leading questions. The other major contribution of the seminar was in developing the coding scheme, working from the raw interview data. Again, struggling with themes, coming to consensus, was a demanding and time-consuming process, but ultimately more complete than if it had only been done by the investigators. Not only was the coding scheme itself more thorough, the processes of creating it required struggle and articulation and reflection on the part of all the participants about the questions of teachers' growth and learning, leading to new understanding.

At the Chicago Teachers' Center, two persons were primarily responsible for the research: a university-based professor and the program coordinator of the teachers' center. They had the advice of the director of the Center, another Center staff member, three Chicago public school teachers, and a university-based researcher who was familiar with the work of the Center and who had previously conducted research on teachers' centers. This is an example of collaboration that was not as extensive as in the previous examples, in that all participants in the research did not participate equally in the decisions made about the final report. Nevertheless, everyone's opinion was valued and important to the conduct of the research.

Three other collaborative research projects are characterized by complete parity among researchers and practitioners, although they did not involve many other center participants. In Philadelphia a teachers' center staff person worked with a researcher from the central office of the Philadelphia Public Schools. In Ferguson, Missouri, the teachers' center director worked with a professor at the University of Missouri, St. Louis. And in Livonia, Michigan, the Center director worked with a staff member at the Institute for Research on Teaching at Michigan State University. In all three cases, the proposal was written by both parties, both participated in data collection, and both participated in preparation of the final report. Teachers' center staff persons in Philadelphia contributed to the data collection. In Ferguson, Missouri, a research associate from the school district participated in the project. And in Livonia several teachers collaborated as interviewers. Their roles were never as extensive as in some of the previously mentioned projects, but one point stands out among the three projects: a practitioner and a researcher worked together, with complete sharing of responsibility, toward a common goal.

In three other projects one person assumed a primary role of coordinating the research and shepherding it through to a final product. Nevertheless, collaboration was present throughout all three efforts. At the Teachers' Active Learning Center in Oakland, California, the director of the Center served as the principal investigator of the project. She relied heavily upon the advice of a researcher from the Educational Testing Service for design of the interview schedules and for analyzing the consequent data. A team of three staff members of the Center and four teachers interviewed other teachers. This required training in interview techniques, conducting the interviews, and interpreting them so that common themes could be identified. In this project a teachers' center practitioner possessed research skills, but sought advice in two different directions: from an experienced researcher and from participants in the Center she directed. This was because she realized that the perspectives of both the researcher and the practitioners would be necessary to inform her research and to give it depth and meaning.

How important is it for a person operating in one domain to undertake a task in another? A consultant to the Oakland project wrote the following in a letter to the Exchange following the Wingspread conference:

> Speaking from my own corner, I was surprised to learn how much the collaborative relationship varied across the studies, and how one model could not possibly accommodate all the modes of working that evolved. I was particularly watching out for relationships that represented role shifts for the participants--practitioners who took on research tasks and perspectives, and researchers who accommodated to the demands of the practitioners' context. Although I don't think there is a direct relationship between the ultimate quality and value of the understanding gained from the effort and the degree to which the participants were stretched, I do believe the issue is relevant to the question of what is the purpose of collaboration. It is quite difficult to combine the acquisition of generalized knowledge and staff development--be that the development of the researcher or the practitioner.

At Project RISE (Regional Inservice Education) in Colchester, Connecticut, the principal investigator was primarily responsible for the research. He worked with a research consultant who was on the staff of the teachers' center; both were experienced with phenomenological research. Six teachers who were participants in the center activities were provided with three days of training and interview techniques. They then interviewed a total of 36 teachers in the area served by Project RISE. In this project teachers served as data collectors, but not as full collaborators. In part this was because phenomenological techniques require skill and experience in reducing data to expressions of the interviewee's own experience. It would be extremely difficult to train amateurs to do this in the limited time available. Nevertheless, even research that is extremely complex and sophisticated can involve amateurs in the collection of the data and can impart to them some sense of the multiple layers of meaning that can be gained from data.

A similar situation occurred at the Education Resource Center in Chicago. Two researchers worked with four teachers' center participants in examining the unique postion of that Center as an agency serving both the community and teachers who live in that community. They adopted this team approach for several reasons. They felt they needed diversity in the research staff in order to understand the perspectives of Center participants (who represented a very wide range of educators and community members). They were also seeking to investigate directly the notion that practitioners' involvement in research would result in different kinds of research findings--possibly more useful to other practitioners--than that produced solely by professional researchers.

Thus they had a study within a study. They were systematically investigating the research experience of the practitioners in addition to studying the Center itself. They accomplished this by interviewing the practitioners before and after the experience, asking them to reflect on their own research experience as part of the ongoing data collection process. And they asked practitioners to write position statements before and after the study. This was supplemented by interviews with all four practitioners.

The final selections of the four practitioners included a fulltime elementary school teacher in the Chicago public schools--a person of ten years' teaching experience who lives in the neighborhood; a community member who is active in local community and religious organizations; a youth worker and community organizer in the Hispanic community; and a teacher at the alternative high school who also serves as community organizer for the Girl Scouts and who lives in the neighborhood.

In writing about this experience, the two researchers commented that there were strengths and weaknesses in involving practitioners from diverse backgrounds.

> The strength of their subjective reactions to events can obscure rather than enhance understanding if it totally blinds them to other perspectives. The use of their own personal experiences and personal networks for data collection can lead the research astray if care is not taken to put their personal experiences into a more generalized framework. Finally, the use of their natural roles to gain entry or build rapport can backfire if there are actors in the setting who customarily don't share with people in these roles.
>
> Structuring the research so these practitioner tendencies don't become liabilities is essential. We found that using a team approach with professional researchers and practitioners from many constituencies of the setting worked to turn these tendencies into assets because each perspective was constantly assessed in the framework of complementary perspectives. We also found that building self-reflection into data collection and team analysis helped to countervail detrimental effects.
>
> Practitioner involvement in research is not a magic key to insight. Our preliminary study does indicate, however, that practitioners do bring resources and styles to research that are special and can add important dimensions to data and analysis in some kinds of studies. They can use their everyday way of knowing and their backgrounds to inform and enrich the research. Care needs to be taken, however, to insure that their tendencies become contributions and don't lead the research into the nonobjective, nonrepresentational extreme that some might fear. . . We cannot answer whether this collaborative kind of research will generally result in more adequate theory about practice or more useful research results, although participants of the center we studied said that results were use-

> ful and the process was much more agreeable than they expected. Certainly the researchers and the practitioners involved will never be the same.

There were other forms of collaboration in these projects--forms which involved center staff much less, yet which can accurately be characterized as collaborative. For example, the Detroit Center for Professional Growth and Development asked a researcher who had been working as an evaluator with the Center to conduct research on the change in governance at the Center. Data collection was not a complicated task in that all the necessary data were already present in the archives of the Center. What was necessary was the extensive organizing and analysis of these data, and the conduct of meetings in which Center staff were able to inform the researcher as to the accuracy of her interpretations. Thus, although one person conceptualized the study as well as gathered the data and analyzed the results, other Center staff were active in responding to the research plan as well as the interpretation of data. Certainly this is collaboration, although it did not always involve practitioners in collecting and analyzing data.

At the School Resource Network in Ventura, California, the teachers' center director and a university professor collaborated in writing the proposal. However, in order to avoid the preliminary findings subtly influencing the Center programming midstream in the study, Center staff were specifically excluded from data collection and analysis until the report was completed in its draft form. Two teachers who had been participants at the Center were enlisted as data collectors, and served as research assistants. They were familiar with the Center, but they no longer participated in it because they were on leave from their teaching positions, serving as graduate assistants at the university. In this project, an attempt was made to infuse the research with the practitioners' perspective while not allowing the conduct of the research to change the direction of the Center. When the research was completed, the Center director and the researcher worked closely together in producing a final report that reflected both perspectives.

The intent in describing these efforts is not to suggest that one method of collaboration is preferable, or that the equivalent involvement of larger numbers of people will result in richer research results. The conduct of a particular study may require that one person take charge and that others serve in a collaborative and supportive role. A member of the three-person research team at the CCNY Workshop Center--all long and closely involved with the Center but in differing roles--provides a criterion of real collaboration:

> It worked easily because we all had a common history and interest in the Center we were studying. Obviously, this sort of commonality is extremely useful in any collaborative effort. The fact that we had different roles and viewed things from different frameworks meant that there was real collaboration and growth of those who collaborated (which I think might be one sort of measure of the extent to which there is collaboration--no growth, no collaboration).

This summary of the several arrangements for collaborative research illustrates several points. First, collaboration can assume many forms. As these reports illustrate, there are different types of collaboration, but all forms of collaboration, if they involve multiple perspectives, serve to enrich research results. Second, it is much more difficult to involve nonresearchers in collaborative research if the methodology is extremely sophisticated. Some forms of research are more appropriate for collaboration than others. Third, regardless of the form of collaboration, it seems clear that participation results in professional growth. Teachers who served as data collectors gained new insights into their own work situation. Teachers who served as collaborators in the analysis of data were also able to contribute and to gain different and new perspectives on teaching and staff development. And those collaborators who assumed responsibility for the writing of the reports discovered that their own conclusions were often modified and enriched by discussing their results with others involved in the activities being investigated before writing their final reports. These are important advantages of collaborative research. However, collaboration does present some difficulties.

C. Observations on Some Difficulties Encountered in the Process.

The Rand Study of federally supported programs designed to induce educational changes found that successful programs were characterized by teachers' sense of efficacy (Berman and McLaughlin, 1975). Similar confidence by teachers and teachers' center staff that their collaboration in research is productive and vital may also be critical to the success of the research. If their function is (perhaps necessarily) limited to collection of data, this could compromise their status in the research project. Beyond this there is a real danger that they could be viewed as the visible proxy for the "real" researcher in questioning or observing other teachers. Thus, a status differential rather than a functional differentiation of responsibilities can easily occur; if so, the problems under study will not have equal significance for all those involved.

At the outset of a collaborative project teachers and teachers' center personnel are likely to have less understanding of and ownership in the process. As one of the participants at the Wingspread Conference reflected:

> The practitioner initially doesn't know how he or she may acquire certain skills or insights; neither does he or she have any personal identification with producing a research report nor the rewards internally and externally which are associated with it.

Additionally, there is the problem of overcoming the mystique teachers associate with research. As another participant at the conference observed:

> There is likely to be a real lack of clarity about what is involved in something they have likely not engaged in before. Expectations are an important factor here as well. There is likely to be a degree of cynicism on the one hand as to what research can contribute; this is suddenly combined with the opposing perception that dramatic results will now be expected from their own efforts.

Another participant in the Wingspread conference offered this caution:

> Teachers have to be sensitized not to expect dramatic results; they must be aware that the research process is, among other things, a process of sharpening questions and generating hypotheses. Expectations should be modest. Research can confirm the obvious (or at least what is obvious to you if not others). It can also make what appears to be obvious more obvious. This is equally beneficial. Certainly, it will not always make the hidden or unknown clear. The expectation cannot be one of dramatic breakthroughs.

At the outset of the collaborative effort there should be a relatively clear need for coming together. Ths could be a problem or an issue that both the practitioner and researcher view as important. Generating questions, gaining clarity about the problem, generating hypotheses, and selecting methodology--all should be done within the context of the experiences of practitioners.

Another potential problem is how to demystify research and, possibly, the perceptions practitioners have regarding researchers. While the emphasis in collaborative research is often on the needs of the practitioner (in this case teachers' center staff as well as teachers), it should be equally obvious that the researcher also may need understanding and some assistance, especially since he or she is also likely to be making a major adaptation.

As one researcher at the Wingspread conference noted:

> Researchers have traditionally been involved in a product-oriented, efficiency-valued activity. A researcher is not likely to have engaged in any form of prior collaborative research, let alone with teachers involved in substantial ways in the process.

This emphasis on efficiency-oriented studies should not be underestimated in the higher education context. Practice-oriented, naturalistic studies can be time-consuming even without involving teachers in the design and analysis. Similarly, there is a question as to how much these studies are valued in the salary and promotion process. Researchers and practitioners both make sacrifices.

This mutual undertaking calls for a period of time for parties to get to know one another and the realities of their respective situations. One of the researchers in this program employed a strategy of bringing teachers into her own environment in a "behind-the-scenes" manner. Teachers are all too familiar with the university researcher's role as authority/expert. What may be less apparent are the less-than-glamorous daily demands made upon professors, the difficulties they encounter in conducting research, and the reasons for which they are valued and rewarded in their own context.

Those bringing research skills to the collaborative process are likely to have a limited understanding and appreciation of the holistic and dynamic nature of a teachers' center and the considerable skill required to work effectively and responsively in that context. Mutual respect will evolve if the conditions for open and honest dialogue can be created; a planned period of time where major participants can get to know each other in their own contexts has been identified as very useful.

Adequate time is essential. A topic of mutual interest may bring the parties together; the dialogue needed to translate this into a research design is another matter. A rich percolation of ideas and continuing clarification of the problem will not likely occur if time is short.

One teachers' center staff person commented:

> I thought I knew what I wanted to know more about. I really didn't see the problem clearly. I cannot stress enough the importance of "making haste slowly".

A university-based researcher made a similar observation:

> When I recall what the major learning was for me, it was how really difficult it was to share with teachers; to work *collaboratively*. It took time and required me to slow down (I was reminded of when I played competitive chess and had to sit on my hands--literally--so as not to make fast, foolish moves). But I was rewarded by having their insights and their thoughtful reflection contribute so very much to the process.

And yet another researcher recalled:

> Semantics continue to frustrate communication even among like-minded people. I learned (once again?) that I must continuously avoid tendencies to "short-cut" in collecting and understanding the perceptions of others.

In summary, one should not underestimate the difficulties of collaborative research and realize it is very much an evolving process. To deal with them, participants in these collaborative endeavors recommended the following:

1. A demystifying of research; a clarification of what it is and is not, orientation in research design and methodology grounded in the topi to be studied, and agreement on how the practitioner can authentically participate;
2. Sensitizing practitioners and researchers to the realities of each others' role and context;
3. An opportunity for dialogue that fosters open sharing and interactive analysis;
4. Adequate time.

This list is hardly exhaustive. Other common problems encountered included the realization that there wasn't a shared interest in the problem; the difficulty of sharing leadership; ensuring that there are appropriate resources and clerical support, especially in data analysis and writing the research report, and maintaining continuity when multiple parties are involved.

There is no simple prescription for avoiding likely difficulties in collaborative research. Perhaps the essential prerequisites are that there is a commitment by both researcher and practitioner to learning more about a specific phenomenon and a realization that there can be multiple benefits associated with a good working relationship.

D. Corollary Benefits of Collaborative Research.

A theme that ran throughout the Wingspread Conference was that of the growth-producing potential of collaborative research for both practitioner and researcher. Several conference participants commented as follows:

> This process dignified the teacher role. It reinforced inquiry on the part of teachers and as importantly it reinforced the notion of how knowledgeable, how theoretical they really are. It forced all parties to communicate clearly and to clarify their notions. It was a real learning experience.

*

> I tend to believe that collaborative research is of greater benefit to researchers than practitioner/teachers unless a topic growing directly from a teacher concern is bent out of shape by research requirements. Researchers so rarely get the "inside view" of what they study and my experience is that it is a real eye-opener to see how complex and at the same time theoretical practice is.

*

> I think that everyone who was involved with our project tried very hard to see things through the eyes of the others. The collaboration was just excellent. It has changed me.

*

> Involvement in any enterprise in which you are "stretched," in which you make difficult decisions, are faced with nitty-gritty problems and in which you honestly look at a piece of the world and want to find out more about it, will contribute to professional growth. Both teachers and researchers grow in this process. The more the issues are related to their own work, the more growth is noticeable.

*

> I must say that my respect for research has grown enormously... working on this team made me feel more professional...I am more encouraged than ever to continue my own professional growth and to continue others to do the same...I have become a true convert! Research has come alive for me.

*

> The collaborative research process obviously can provide psychic support for those engaged in it and a heightened sense of self-esteem and effectiveness (especially for teachers) as professionals. It is also apparent that this experience has encouraged teachers to be more reflective about what they are doing and suggested new ways for them to think about and understand youngsters.

*

> I am struck by the evidence that members of our team returned to their classrooms with a different point of view than they held before we entered into this research.

*

> I learned much more than I thought I would about teachers and teaching in my district...not only about the focus of our study but about their perceptions of their role and the environment in which they work.

Many more examples could be provided. Participants in each of the projects enumerated personal benefits of one type or another. This should not be surprising, for it is likely true that there are elements of personal growth in any well-conducted inquiry. The dominant theme in these initial endeavors, however, appears to be the amended perceptions of reality gained by identifying and clarifying a problem with people in different roles, and the thinking evoked by the need to translate experience and techniques to people unfamiliar with them. One could anticipate that the opportunity for such growth might be greatest in an initial collaborative effort. On the other hand, the lessons learned over time about how to enable effective collaboration may promote still more growth in subsequent efforts.

It is also quite apparent that teachers involved in these projects acquired and refined skills of formal inquiry. These are potentially useful in their day-to-day teaching. But it is not apparent what baseline skills practitioners need to participate fully and with a sense of partnership in the collaborative process. This will vary considerably, depending on the type of study conducted and the division of labor on the research team. It appears, on the basis of these projects, that teachers can contribute substantively to the collaborative process with minimal research skills. Multiple examples of their assistance in formulating the problem, assisting in data collection and in data analysis can be found in project reports. We conclude that:

1. Teachers can contribute in meaningful and multiple ways in the conduct of formal research with but minimal research training.
2. Both teachers and researchers report growth experiences from their involvement in collaborative research, especially when the conditions enumerated earlier are present.
3. While collaborative experiences might be intended for the growth of those who participate (especially teachers), there is nonetheless an obligation to generate knowledge that meets the canons of empirical inquiry and to involve teachers in enriching such investigations.

We conclude, then, that there is a need to enhance the quality of research through collaboration with practitioners. In addition, collaborative forms of inquiry may legitimately be pursued as a growth experience. The positive testimony of those who participated in these collaborative research projects suggests how research as both an inquiry and a professional growth activity might be structured. Well-conceived, systematic inquiry certainly fosters professional development.

V. IMPLICATIONS

In Section III a summary of results from the 14 research projects was presented. The experienced teachers' center practitioner will likely see implications for his or her own practice in each of those summaries. In this section we intend to focus on those implications, emerging from the several reports taken together, that speak to practices and principles common to many teachers' centers. Research often serves to verify what the practitioner already suspects from experience and intuition. Those experienced with teachers' center work will find that to be the case for many of the projects reported here. Their results imply how program emphases can be determined, suggest means for increasing participation in centers, and identify sources of support for centers.

A. Working with Individuals.

Projects that investigated participants' perceptions of teachers' centers or some aspect of teachers' center programs all reach a common conclusion. The most important contribution of teachers' centers is their emphasis upon working with individual teachers over time. It is this emphasis that most distinguishes teachers' centers work from other quality inservice education programs. A recent major survey of federallysupported teachers' centers found that interaction with individual teachers was the keystone of teachers' center work. They report:

> Teacher centers may be most clearly distinguished from other approaches to inservice education by the priority that is placed on addressing the needs of individual teachers. (Mertens and Yarger, 1981).

Mertens and Yarger refer to the tailoring of assistance to individual teachers. The research sponsored in these projects support this as important and elaborate as well on how such assistance is provided. In working with teachers, centers tend to provide a rich setting that suggests alternatives to present practice. They also have staff members who can respond to and expand teachers' varied interests. These center practitioners have a commitment to continuing to work with teachers as new concerns arise over time.

These investigations suggest that the concerns teachers initially express are but clues to deeper interests or needs. Thus, the specific initial request can be viewed as an entry point. The staff and the setting may suggest other interests. The teacher may well realize that there are other needs but not be willing to share these until he or she is sure that a trusting relationship exists. The teacher must believe that his or her work is respected and that admitting a need is not equivalent to admitting a serious deficiency. A sensitive staff recognizes this and gradually encourages expressions of other concerns. By providing a setting in which this is possible a center is responsive to teachers in ways that are not possible in large group activities that tend to address predetermined issues and reflect more general, group concerns.

A teachers' center staff should be analytical when teachers seek help. They should be responsive to both the initial concern and possible alternatives that may be valued by the teacher. When appropriate, they should encourage extended work with the teacher and recognize the developmental nature of many important learnings. In short, they should go beyond responding successfully to the request and make plans for following up on the contact and staying in touch with the teacher over time.

B. Providing Incentives and Disseminating Teachers' Work.

Some centers provide financial incentives for teachers to engage in individual activities. This is one way in which participation can be encouraged, and it is an important component of many center programs.

Financial awards can be very important, both for the learning opportunities they make possible and for the symbolic recognition they give to teachers. In the face of increasingly scarce funds for centers, it may seem incongruous to suggest awarding even small amounts of money to teachers for individual purposes. But these awards appear to validate the worth of a teacher's work and their sense of potency. Additionally, since these monetary awards often result in materials and ideas developed within a local context, and by local practitioners, there is a greater possibility that they will be used by the teacher and his or her colleagues.

The research results suggest that center staff must find ways to spread word of the work teachers develop in the center. This appears important whether teachers have received financial support for their work or not. Recognition through dissemination also validates a teacher's efforts. Materials produced at a center that result in structural changes--in ways classrooms are organized or instruction conducted--become centrally important and frequently remain in use over time. Alerting teachers to ideas that have become form and substance in other classrooms vividly illustrates how teachers' investments in their continuing growth do make a difference in the classroom.

C. Assessing Teachers' Needs.

Those projects that included an analysis of needs assessment methods in their research are also suggestive. There are advantages to different types of needs assessments. Different procedures yield different results, not just in identifying different needs and interests, but in identifying different types of needs and interests. Centers working with entire faculties should remember that the needs and interests of individual teachers are often different from those expressed by the faculty as a whole. An important implication, then, is that centers retain their orientation to individuals even while working with the aggregate faculty. Much of the basis for teachers' support of centers lies with the credibility and trust that has resulted from this individual work. It remains important to attend to individual as well as group concerns, especially for centers that include work with entire building staffs as part of their program.

Additionally, there appear to be benefits from informal, personalized needs assessment that are not obvious in the assessment results themselves. Involving staff and participants in informal sensing of needs can yield subtleties and insights simply not available in more formal procedures. Informal assessment also offers the advantage of moving beyond assessment to joint reflection about program possibilities. Thus, one implication of this research is that while centers can conduct large-scale, formal needs assessments that yield accurate results at less cost, other types of assessment yield a greater richness of understanding about individuals and suggest activities that would not have surfaced otherwise.

D. Developing Support for the Center.

Throughout the reports, but especially in those that studied sources of support for the center, the importance of center participants encouraging their colleagues to participate in center activities emerges. Teachers are the most important means of promoting center use. Administrators are also important. They can encourage participation and they can create obstacles to participation. A respected administrator, by failing to express support, may also be masking an implicit message that center activities are not valued. But it is the frequent users of the center who do most to encourage other teachers' use. The implication is that a focus on frequent users interacting with infrequent or non-users may better advertise the resources and benefits of a center than a widespread dissemination effort. Assisting users in helping their colleagues find ways to use the center is likely a valuable use of staff time.

This is related to our first point; by providing a quality program that is responsive to individual teachers, a center will develop its most important source of core support. Although such teachers' support may not be sufficient to continue a center in times of financial reductions, lack of this support is likely to be fatal. It's also important (as two projects discovered) to align the center with influential persons within the system who are supportive of the philosophy and goals of the center. In summary, it is a combination of factors--providing individual attention and quality programs, recognizing the worth and work of teachers, attending in varied, creative ways to their expressions of interest and need, and working with center participants in encouraging others to use the center--that contribute to success and the continued growth of a teachers' center.

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APPENDIX A

PROPOSALS RECEIVED

PROPOSALS RECEIVED

Round I: Successful Proposals

1. "Impact of Participation in Teacher Center Activities on Teachers Personal and Professional Development." Brookline Teacher Center, Brookline, Massachusetts.

2. "The Development of a Research System for Validating the Effectiveness of Teacher Center Products." Teacher-Parent Center, Philadelphia, Pennsylvania.

3. "Teachers' Perceptions of the Role(s) Teachers' Centers Play in Their Professional Development." Teachers' Active Learning Center, Oakland, California Public Schools.

4. "An Exploration of the Relationships Between Setting and Use in an Experienced Teachers' Center." Workshop Center for Open Education, New York City.

Round I: Unsuccessful Proposals

1. "Ascertaining Professional Growth of Participants in a Federally Funded Teachers' Center." Amherst Area Teachers' Center, Amherst, Massachusetts.

2. "The Relationship Between Teacher Need Satisfaction and Participation in a Teacher Center." Bay Shore Teacher Center, Bay Shore, New York.

3. "The Effect on Teachers of Participation in the Shaping of a Teacher Center." Cincinnati Jewish Teacher Center, Cincinnati, Ohio.

4. "Patterns of Use, Impact, and Success at the Education Resource Center." Education Resource Center, Chicago, Illinois.

5. "The Educational Confederation: Nine Years of Decision Making." The Educational Confederation, St. Louis, Missouri.

6. "Determination of the Primary Role Served by a Teachers' Center, How Teachers Select Inservice Participation and How That Participation is Related to Teachers' Determination of District Needs and Personal Interest Goals." Ferguson-Florissant School District, Ferguson, Missouri.

7. "An Assessment of the Training Effects of Weekly Attendance at a Teacher Center on Ten Pre-service Student Teachers' Approaches to Teaching in the Classroom, as Compared with Ten Student Teachers Who Did Not Attend." Hunter College, New York City.

8. "An Analysis of Factors Affecting Local Community Support of an Independent Teachers' Center." The Learning Exchange, Kansas City, Missouri.

8.

9. "School-Based Staff Development Decision-Making in Elementary and Secondary Schools." Leon County Teacher Education Center, Tallahassee, Florida.

10. "A Model for Converting Industrial Scrap Materials into Useful Classroom Resources." North Shore Education Center, Beverly Farms, Massachusetts.

11. "An Investigation of the Development of Educational Activities." Oldham Education Center, Independence, Missouri.

12. "Programs and Participant Satisfaction: A Description, Comparison and Examination of Relationships." Open Space Teacher Center, Los Angeles, California.

13. "A Documentation and Evaluation of the Impact of the Pittsburgh Teachers' Center on Student Outcomes and Professionalization of the Teachers' Role." Pittsburgh Teachers' Center, Pittsburgh, Pennsylvania.

14. "A Comparative Study to Determine Effective Leadership Practices in Experienced, Small Teachers' Centers. Resource Development Foundation, Brattleboro, Vermont.

15. "Analysis and Evaluation of Programs at a Teachers' Resource Center Focused on the Needs of Children Eight and Under." Seattle Child Care Resource Center, Seattle, Washington.

16. "Teacher Centers: A Comparison of 'Users' and 'Non-Users'." The Teacher Center, Insight, Unlimited, New Haven, Connecticut.

17. "A Study of The Teacher Center Experience at the Teacher Center in Wilmette as Seen Through the Users' Perceptions, Use-Styles, and Classroom Behaviors." Teacher Center, Wilmette, Illinois.

18. "A Case Study of Teacher Center Organization and Use: The Charlotte-Mecklenburg Teacher Center." Charlotte-Mecklenburg Teacher Center, Charlotte, North Carolina, and the University of Tennessee.

19 "Development of Individualized Evaluation Procedures for Teacher Center Programs." Thunderbird Teacher Learning Center, Phoenix, Arizona, and the University of Arizona.

Round II: Successful Proposals

1. "The Effects of Change in Governance Structure on the Practices and Outcomes of an Experienced Teachers' Center." Detroit Center for Professional Growth and Development, Detroit, Michigan.

2. "An Inquiry Into How a Community Emphasis Contributes to and/or Detracts from the Ability of a Resource Center to Help Imrpove Education." Education Resource Center, Chicago, Illinois.

Round II: Unsuccessful Proposals

1. "The Effects of the Training of Inservice Teachers in the Use of Miscue Analysis at the Auburn, Alabama Teacher Center." Auburn University, Auburn, Alabama.
2. "An Ethnographic Look at a Teacher Center's Impact on High and Low Participant Schools." Ferguson-Florissant Teacher Center, Ferguson, Missouri.
3. "An Assessment of the Training Effects of Weekly Attendance at a Teacher Center on Ten Pre-Service Student Teachers' Approaches to Teaching in the Classroom, as Compared with Ten Student Teachers Who Did Not Attend." Hunter College, New York City.
4. "Effects of Teacher Center Participation Upon the Professional Development of First-Time Users." Teacher Center, Wilmette, Illinois.

Round III: Successful Proposals

1. "Efficacy of Informal and Formal Needs Assessment Procedures for a Teacher Center Staff Development Program." Ferguson-Florissant Teacher Center, Ferguson, Missouri.
2. "A Phenomenological Study of User and Non-User Perceptions of a Teacher Center and Inservice." Project RISE, Colchester, Connecticut.
3. "The St. Louis Metropolitan Teacher Center Mini-Grant Program: A Case Study." St. Louis Metropolitan Teacher Center, St. Louis, Missouri.
4. "The Making of a Teacher Center Workshop - A Detailed Study." School Resource Network, Ventura, California.
5. "An Examination of Principals' Effect on Teachers' Centers." Southern Piedmont Educational Consortium, Albemarle, North Carolina, Atlanta Area Center for Teachers, Atlanta, Georgia.

Round III: Unsuccessful Proposals

1. "The Relationship Between Teacher Self-Actualization, Organizational Climate and Participation in a Teacher Center." Bay Shore Teacher Center, Bay Shore, New York.
2. "Project COLLAB." Connecticut Center for Personal and Organizational Development, Rocky Hill, Connecticut.
3. "A Proposal to Investigate the Critical Aspects of the Inservice Facilitator Team Model." Hampshire Educational Collaborative, Amherst, Massachusetts.

4. "The Impact of Collaboration in Texas Teacher Centers." University of Houston, Houston, Texas.

5. "Comparative Study to Determine Effective Leadership Practices in Experienced, Small Teacher Centers." University of Massachusetts, Amherst, Massachusetts.

6. "Northwest Staff Development Center Mini-Grant Study Proposal." Northwest Staff Development Center, Livonia, Michigan.

7. "Teacher Participation in Teacher Center Program and Related Changes in Their Classroom Behavior." Pittsford Teacher Center, Pittsford, New York.

8. "An Investigation of an Exemplary Program for Working with Hard-to-Reach Teachers." Southwest Arkansas Teacher Center, Texarkana, Arkansas.

9. "Consortium Models and Single District Models of Administration for Teacher Education Centers in Florida." Southwest Florida Teacher Education Center, Fort Myers, Florida.

10. "A Collaborative Study of Teachers' Center Individualization." Workshop Center for Open Education, New York City.

Round IV: Successful Proposals

1. "Analysis of Individualized Teacher Center Services." Northwest Staff Development Center, Livonia, Michigan.

2. "A Study of the Active Staffing Process of a Teachers' Center." Chicago Teachers' Center.

3. "Exploring a Teachers' Center's Support of School-Based Coordinating Teachers." Teaching Learning Center, Charlotte-Mecklenburg Schools, Charlotte, North Carolina.

Round IV: Unsuccessful Proposals

1. "Impact of the Teachers' Center at Fairfield's Work with Children on the Participating Teacher's Professional growth." Teachers' Center at Fairfield, Fairfield, Connecticut.

2. "Impact of Teacher Use of Bibliographic Information on Classroom/School Practice." Mid-Coast Teachers' Center, Camden, Maine.

3. "A Study of the Problems and Decision-Making of Experienced Teacher Center Directors." New York City Teacher Centers Consortium.

4. "The Validity of Needs Assessment Strategies." Pittsford Teachers' Center, Pittsford, New York.

5. "Developing a Participant Typology and Examining Teacher Center Effects on the Classroom Environment of Differing Type Participants." UPDATE Teacher Center, Stillwater Public Schools, Stillwater, Oklahoma.

6. "Study of State Teacher Center Networking Processes." University of Tennessee, Knoxville, Tennessee.

7. "The Effects of Teacher Center Involvement upon Leadership Attributes of Participants." Western Montana Teacher Center, Missoula, Montana.

8. "The Effects of Long Term Teacher Reassignment on the Success of a Teacher Center." Wood County Office of Education, Bowling Green, Ohio.

APPENDIX B

List of Proposal Reviewers

List of Proposal Reviewers

1. Anne Bussis, Educational Testing Service, Princeton, New Jersey.
2. Cathy Caro-Bruce, The Teachers' Workshop, Madison, Wisconsin.
3. Roy Edelfelt, National Education Association Washington, D.C.
4. Carolyn Fay, Indianapolis Teacher Center, Indianapolis, Indiana.
5. Sharon Feiman, Michigan State University, East Lansing, Michigan
6. Roslyn Herman, New York State United Teachers, Albany, New York.
7. Celia Houghton, Goddard College Teachers' Center, Plainfield, Vermont.
8. Kenneth Howey, University of Minnesota, Minneapolis, Minnesota.
9. Merrita Hruska, Amherst Area Teachers' Center, Amherst, Massachusetts.
10. Karen Kent, Marin Teacher Learning Cooperative, San Rafael, California.
11. Howard Knopf, Atlanta Area Center for Teachers, Atlanta, Georgia.
12. Diane Lassman, The Exchange at the Teacher Center, Minneapolis, Minnesota.
13. Robert Mai, KTEC, St. Louis, Missouri.
14. Nancy Mayeda, San Francisco Unified School District, San Francisco, California
15. Wayne Mosher, St. Louis Metropolitan Teachers' Center, St. Louis, Missouri.
16. Paul Nachtigal, CEMREL, Denver, Colorado
17. Joanne Nicholson, Teachers' Center at Fairfield, Fairfield, Connecticut.
18. Aleene Nielson, Moab Teacher Center, Moab, Utah
19. Jerry Olson, Chicago Teachers' Center, Chicago, Illinois.
20. Vito Perrone, University of North Dakota, Grand Forks, North Dakota
21. Emily Richard, The Learning Center, St. Louis, Missouri.
22. Roberta Riley, University of North Carolina, Charlotte, North Carolina.
23. Christine San Jose, Syracuse University, Syracuse, New York.
24. Marianne Schenker, Education Resource Center, Chicago, Illinois
25. Patricia Zigarmi, National Staff Development Council, Oxford, Ohio

APPENDIX C

Proposal Review Form

PROPOSAL REVIEW FORM

RESEARCH ON EXPERIENCED TEACHERS' CENTERS

ORGANIZATION/INDIVIDUAL SUBMITTING PROPOSAL: ______________________________

____

____

After you have written your comments for the four criteria and (on page 6) have written your general impressions of the proposal, please check one of the five categories as listed below and sign your name.

____

- ____ This is an outstanding proposal and should be supported above almost all others.
- ____ This is a strong proposal and should be supported if minor re-revisions are made.
- ____ This proposal is of average quality but may be supported as it investigates an important topic.
- ____ This proposal is of poor quality and should not be supported without changes.
- ____ This proposal should not be funded under any condition.

____

Signature: ____ Date: ______ ______

CRITERION 1: Significance of the Proposed Research for Teachers' Centers.

In evaluating this proposal on this criterion, look for:

- evidence of a complete and accurate assessment of current knowledge pertaining to the research topic.
- evidence that proposed project is likely to contribute knowledge useful to teachers' centers and users.
- evidence that the project will result in a continuing research interest and capability at the proposing center(s).

Comments:

CRITERION 2: Quality of the Proposed Study.

In evaluating this proposal on this criterion, look for:

- evidence of collaboration between researchers and practitioners in preparing the project application, and the strength of plans for continuing collaboration in carrying out the study.
- evidence of the adequacy and appropriateness of the design, research methods, and instruments (if any).
- evidence of the likelihood of the success of the project.
- evidence of the likelihood that results will be available in a form accessible and usable by teachers' centers practitioners.

Comments:

CRITERION 3: Adequacy of the Site(s) in which Research will be Conducted.

In evaluating this proposal on this criterion, look for:

- evidence of the richness of program and depth of experience of center(s) to be studied.
- evidence of access to necessary organizations, groups, and individuals for study purposes.
- evidence that teachers are interested in participation, if appropriate.

Comments:

CRITERION 4: Qualifications of the Proposed Staff.

In evaluating this proposal for this criterion, look for the qualifications of the proposed principal investigator and other staff as evidenced:

- by experience and previous research activity.
- by the quality of the discussion and analysis of the topic and methodology.

Comments:

GENERAL IMPRESSIONS:

Please provide your general impressions of the proposal and any additional comments you may wish to make:

APPENDIX D

Project Summaries of Their Research

TEACHER CENTER BROOKLINE
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IMPACT OF PARTICIPATION IN TEACHER CENTER ACTIVITIES ON TEACHERS' PERSONAL AND PROFESSIONAL DEVELOPMENT

Research Summary

This research project involved twelve Brookline public school teachers K-12 with the project staff in an interview study of 28 Teacher Center Brookline users and a matched sample of 12 non-users, to assess the impact of the Teacher Center on their growth and development. The goals of the project were both to carry out collaborative research with teachers and to obtain data on the research question. The project consisted of a research seminar for all participants which introduced them to research, developed an interview instrument and a coding and data-analysis scheme as well as interviews carried out by all participants. Data analysis was continued in the summer after the close of school and included only a fraction of the participating teachers.

The study showed that Teacher Center users are a cross section of the Brookline K-8 elementary school teachers in regard to age, gender, years of teaching in Brookline, & school in which they teach. Since it is often assumed that teacher center participants are a certain kind of teacher, it is surprising to find that users and non-users describe their professional lives in similar terms, with several minor exceptions. The results also indicate that male and female teachers speak about children,and their relationship with children,in strikingly different terms.

Although our study shows no major differences between users and non-users in their discussions of their educational philosophy or development, this does not mean that everyone who uses the center shares the same beliefs or practices. Interviews indicate users percieve a diversity among participants in approaches, beliefs and ideas. Teachers discuss the impact of the educational philosophy of the teacher center and it's setting on their own ideas. They make observations about the community of learners who participate, and describe the range of activities they find important. New teachers describe the particular ways the center has formed their initial teaching experience in Brookline. Further, teachers describe the contributions to their growth made by the centers'materials, the resource teacher, and the network of teachers who stimulate and support one another. Finally, they emphasize the role of reflection, teacher designed programs, and integrated curriculum on their development.

The collaborative research process was interesting and useful for all participants. Teachers reported that they gained knowledge of practical research skills and that interviewing other teachers in the system contributed to their personal and professional development.

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RESEARCH REPORT

A RESEARCH SYSTEM AND VALIDATION OF THE EFFECTIVENESS OF TEACHER CENTER PRODUCTS

by
Philadelphia Teacher Parent Center
and
Office of Research, Planning & Evaluation

SUMMARY AND CONCLUSIONS

The Philadelphia Teacher Parent Center project was developed to address specific questions about products made in the Center by teachers, parents and aides, to develop a prototypical research model, and to publish a handbook of the most successful products. Questions pertaining to the products included (a) did visitors make what they planned during the visit to the center (b) how did visitors to the PTPC decide to make an item, (c) what was the source of the design for an item (d) how did the staff help in the creation of the item (e) how was the item used, (f) was the item effective, and (g) was the item durable.

The handbook, "A Teacher Center's Greatest Hits," is a direct product of the combined efforts of the PTPC staff and the research team. A compilation of all the forms and instruments developed for the research model follows the report.

There were three major interrelated sources of research data for this study: the Visitors' Register, A Teacher Center Survey Part I and A Teacher Center Survey Part II. The Visitors' Register, used in combination with the Teacher Center Survey Part I, provided a profile of maker characteristics. The Part I survey examined staff involvement and the selection and design process. The results were used to determine which items created in the Center would be evaluated further using the Part II survey. Approximately half the people who made the selected items were sent A Teacher Center Survey Part II. This final survey (Part II) provided information on the use, effectiveness, and durability of the items.

It was found that visitors to the PTPC, on the average, created more items than they had planned. Although many of the items created were the participant's own idea, most people had staff assistance in their decision-making process. Design decisions were chiefly made with PTPC staff input. Participants reported a very high level of PTPC staff help in the creation of their items.

Both furniture items and learning aids were found to be very effective by a majority of respondents in helping teachers to better organize, prepare, and present their instructional activity. Learning aids were rated as very effective in helping students learn what was taught, and a majority of teachers felt that the furniture they created did, indeed, contribute to the students' learning process.

Products made in the Philadelphia Teacher Parent Center were also found to be very durable. Most products required no repairs and showed only normal wear even though they received heavy to continuous use in the classroom.

This research effort gave concrete answers to many questions the PTPC staff could previously only surmise. The staff thought teachers were using the items in their classrooms, but they never realized how many creative uses teachers had developed for the items until the survey responses were collected. The PTPC staff was also gratified that the responses acknowledged the variety of ways help is offered to visitors.

It is the opinion of the research team that this project exemplified the ideal relationship that can exist between a project staff and a research team. The expertise of both groups molded to produce a practical product based on scientifically researched information.

TEACHERS' PERCEPTIONS OF THE ROLES A TEACHERS' CENTER PLAYS IN THEIR PROFESSIONAL DEVELOPMENT

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The purpose of the study was to identify the perceptions by teachers' center participants of the role(s) the teachers' center (Teacher Shelter/Teachers' Active Learning Center) plays in their professional development. These perceptions were to be analyzed as clues to future changes the center would make in order to remain responsive to participants' development. To elicit information about perceptions, the reflective interview was selected as the most appropriate method of investigation. A team of three center staff members, four teacher participants (included three advisory group members), and a research consultant formulated the interview questions around four aspects of the study question: What the teachers did in the center, what center experiences they implemented in their classrooms, how they perceived their own professional development, and how they viewed the center and its development.

A sample of 21 participants, preschool through secondary were selected from among the most frequent users of the center over the three years prior to the study. (Some of the sample had participated seven of the ten years the center had been operating.) The sample closely matched the mix of all center users in grade level and schools and the pattern of the district teachers in ethnicity and sex. Interviews averaged one hour in length, taking place after school. The interviewers and their subjects were paid a modest stipend. The interviews were tape-recorded and not transcribed.

Analysis included periodic oral summaries during the interview period and formal analysis of the tapes. Formal analysis consisted of first, individual listening to each tape for general impression, individual themes, and particular points around the four aspects of the study and, second, group listening to each tape with each member of the group listening for information about only one of the four aspects: Center activity, classroom (and school setting), professional growth, of view of center. An external evaluator listened to seven of the most informative tapes for the general impression and two aspects only: View of center and professional growth.

The findings clarified several key terms of the study. "Professional development" seems to be a function of personal style; the way of organizing information; the view of teaching and learning; the concept of curriculum; the view of self as change agent; the view of student needs, interests, levels; interpersonal relations; participation in continuing education. The "support role" which the center plays seems to encompass material help, substantive learning experience in response to expressed need; conceptual framework and process for curriculum development; empathetic listening, active learning, individualized staff development, teacher-decision-making, space and tools to work, philosophical reinforcement, classroom assistance, informative environment.

These meanings of professional development and supportive role of the center underscore the major finding of the center: the 21 teachers represented a range of views of teaching and learning and of their own professional growth; yet each viewed the center as supporting them in their development regardless of type.

All teachers had an individual theme which permeates their described used of the center, classroom teaching, and views of the center, their own growth, and teaching and learning. The themes had to do with their personal approach to teaching or to students or their pedagogical methodology.

The only close match among the teachers' responses to the four categories of questions appeared in their view of teaching and learning and their view of their own professional development.

The perceived roles of the center were inferred from the aspects of the center which the teachers mentioned most often, most clearly, and most authentically. The aspects of the center which played a major role in the teachers' use of the center included free materials donated by industry (mostly for curriculum projects) - 75%; workshops and responsiveness to teachers' needs - 60%; curriculum development, ideas, interaction with other teachers, personal support - 50%; individual help, learning process teaching methods - 40%; professional affirmation, support for individual view of learning and teaching, construction space and tools, learning environment, district related activity, browsing, classroom advisory work - 20-25%.

The findings suggest that the center has to keep sensitive and responsive to the growing needs of the participants who have a variety of needs--no single view of teaching and learning.

The interview methodology and the collaborative research of staff and teachers which elicited the perceptions of teachers can become a part of a teachers' center program. The collaboration strengthens the findings and provides staff development to both teachers and staff the teachers in the study developed objectivity in their viewing other ways of teachers and they learned to articulate the rationale for their own teaching, therefore providing a clearer direction for their own teaching. The staff members gained a classroom perspective from the teacher researchers, thereby becoming more aware of practical teaching and learning issues as they affect students. Both teachers and staff developed skills in questioning and listening. Both developed an awareness of individual differences among center participants.

AN EXPLORATION OF RELATIONSHIPS BETWEEN USE AND SETTING IN A TEACHERS' CENTER

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For the Workshop Center, as for many teachers' centers, the provision of a work/resource space is a fundamental service and is the basis and setting for many program activities. Such a space centralizes and gives continuity to activities like workshops and to resources and staff that otherwise would usually be scattered or temporary. The present study examined how the setting created in this space at the WCOE affected participants' use of the Center and how, in turn, participants' use shaped the development of the setting. (We defined setting as comprising but transcending particular materials, arrangements, programs, participants, uses, and staff.) Our purpose was to explore the dynamics of relationship between use and setting and to illuminate how these dynamics contributed to participant and Center growth.

The study topic was determined in a meeting of Center staff and teacher participants. Information was collected by questionnaire from a broad selection of all WCOE participants and by interview from a smaller number. Observations at the Center over the period of the study were backed by the three authors' observations and by documentation of the WCOE over a period of years. Analysis of all information occurred through periodic discussions among the authors and through various discursive explorations of the information.

The first level of dynamic discussed in the final report of the study was between what we called interpenetration of use and density of setting. We found that whatever discrete need or use brought participants to the Center initially, the setting was such that it led to other uses within a single visit and over time. The mingling, mutual influence, and interweaving of uses occurred within a single participants' use over time (his or her "personal configuration of use") and across groups of users. Interpenetrating use revealed underlying connections between different aspects of the setting and between uses, connections that were then made more visible and integrated into the setting by staff so that they could be used by others. Through continuing use by different participants in different ways, the setting thus became dense with possibilities for use that had not been previsaged by participants or staff.

A second level of dynamic between use and setting was between participants' sense of themselves in the setting as real, whole, adult people and their sense of the Center's authenticity and reality. Standing a bit apart from participants and staff, the setting relied on participants' capacities to assess the resources and their needs and to formulate uses of the resources that would respond to their needs. Participants' described the setting as "home-like." It had coherence and presence, a content as well as a style. It offered something real to grow from and was in turn permeable to participants' real interests and concerns.

A third level of dynamic was between the Center's rationale, expressed concretely in all the arrangements of the setting and in the interactions of staff with participants, and participants' professionalism. The setting invited participants' active use according to their self-defined needs and interests, but it also drew them into new uses that brought to the surface other needs and interests. It gave participants' time and a context in which to recognize in the pattern of their use their longer-range purposes, interests, needs. The ideas and commitments they encountered in the setting helped them to uncover the relationship between immediate needs, their practice more generally, and their deeper interest in helping children learn. The setting thereby confirmed their professional seriousness. Participants' use of the setting in their own ways and for their own purposes was also an influence on the setting and hence on the rationale inherent in it. Their use stretched staff awareness of possibilities and provided material for staff reflection on further implications of the underlying rationale and how to develop these implications concretely in the setting.

THE EFFECTS OF CHANGE IN GOVERNANCE STRUCTURE ON THE PRACTICES AND OUTCOMES OF AN EXPERIENCED TEACHERS' CENTER:
The Detroit Center for Professional Growth and Development

The Detroit Center was established through the cooperation of five major educational organizations. Top level personnel from each of these organizations--Detroit Federation of Teachers, Detroit Public Schools, Organization of School Administrators and Supervisors, Wayne County Intermediate School District, and Wayne State University--made up the original five member Governance Board that served from December, 1975 to September, 1980. In 1980, six new members were added to fulfill the requirements of state legislation for a majority of teacher members.

The purpose of our research was to examine the effect of this change from the original five member board to the new, eleven member Policy Board in terms of:

a. how the Board operates and
b. the services provided by The Center.

A longitudinal design was used. Board records, in the form of meeting agendas, handouts, and minutes, provided the data on Board operation. Workshop records, in the form of planning, participation, and evaluation information on 926 activities from a five year period, provided the data on Center services. Time, which can be equated with experience, provided the link in studying the relationship between governance/policy board operation and Center service.

The predominant change in Board operation was in meeting efficiency. Scheduling caused problems after the change in Board composition. Several meetings needed to be cancelled because of attendance difficulties. Release time for teachers to serve on the board became a new issue for Board consideration. While agendas became less complex, minutes and handouts remained thorough. During the first four years, the one teacher member made the majority of motions; in the fifth year after the change, teacher members still made the majority of motions but also became the most prevalent "seconders." Teacher members always were and continue to be active members of the Board. That the Board worked in harmony can be inferred from the absence of use of veto power in making decisions. The original Board had a common goal from the very outset: to provide relevant, planned staff development activities for and with Detroit educators. The new Board maintains this goal.

Fiscal problems, in terms of lobbying, obtaining funds, and budgeting, were the prime issues before the Board in all years. It is through budget decisions that Center program was most affected. Budget decreases led, for example, to fewer summer offerings and an increased use of Center personnel as workshop consultants, with a concomitant decrease in the hiring of outside consultants. No changes in participant evaluations of activity quality and usefulness were observed that could be related to changes in the Board.

The essential role of the Governance/Policy Board has been to keep The Center alive through seeking and maintaining financial support for Center operation. While taking full responsibility for funding issues, the Board delegated authority for program development and delivery to Center staff. We can infer a mutual trust and dependency between staff and board. This symbiosis is the key to a successful teachers' center. The one group works hard to offer highly valued staff development programs, while the other group works hard to maintain the fiscal and political support necessary for the center's life.

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January 29, 1982

PRINCIPALS' RELATIONSHIP TO TEACHER CENTERS

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Purpose of Study:

This study was conducted to examine the relationship between building principals and teacher centers. Of particular interest were the principals' perceptions of the centers, their attempts to support them, and the effect of this support on center use by teachers.

Source of Data:

Fifty elementary school principals in the Atlanta Area Center for Teachers and Albemarle Teacher Centers areas were interviewed by trained teacher-interviewers. Also interviewed were the center staff persons in the two areas. Teachers in the fifty schools completed questionnaires about the center. Finally, records were kept of the contacts made between principals and center staff persons.

Results:

Most principals expressed support of teacher center activities, considering them to be an important service to their teachers. The form of support most often mentioned by principals and staff persons was the passing on of information concerning center activities. Also mentioned were verbal encouragement and administrative provisions to make center use more feasible for teachers.

The effect of principal support on center use appears to be small. Teachers seem to be more affected by other teachers' opinions than by administrators.

Conclusions:

The most effective strategy for dealing with principals is: (1) keep them informed, (2) do nothing to undermine their authority, and (3) rely on "word of mouth" among teachers themselves in order to build center use.

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Most teachers' centers are run by teachers for teachers. We studied ERC which is organized in accordance with a different model emphasizing community/teacher partnership. We sought to understand the costs and benefits of this unusual model and how specific organizational arrangements brought about these benefits and costs.

Our study involved two professional researchers and three practitioner/researchers (people whose main social roles were the same as some segment of ERC's clientele). We used both qualitative and quantitative research methods, both as participants and as observers, to study the events and daily processes of the organization. We also studied many of the organization's documents. In addition, we conducted structured interviews of the staff and Board, and informally interviewed teachers at a local school and representatives of community organizations. We also did a telephone survey of a 99 person random sample of those who visited the Center over a year and a half period. Finally we analyzed all available information on the workshops scheduled to be held from the founding of the Center to the end of the study (a five year period).

Our final report consists of four papers. The first is a summary of our findings, intended to be used as a resource by people who work with teachers' centers. In it we outline the costs and benefits of the ERC model. The costs include an unstable organizational identity, financial uncertainty, necessity to adapt to changing programs and staff, and ambiguity between grassroots and professional identity. The benefits include serving the unserved, an ability to draw on a wide range of human and material resources, organizational flexibility and survival, and insulation from environmental forces such as the demoralization among Chicago public school teachers.

The second paper takes a closer look at how ERC has survived and continued to work toward the same goal, "to serve anyone who imparts knowledge to others." The paper explores the history of ERC and how specific mechanisms have been developed to cope with a changing and uncertain environment.

The third paper studies how practitioners might be special in their approach to research. Several tendencies of practitioners are analyzed including a preference for action rather than reflection, a trust in feeling and intuition in addition to thinking, and an ability to use personal life as a source of information and data. The report also considers possible pitfalls in practitioner involvement and issues in organizing this kind of collaborative research.

The fourth paper studies in detail the pattern of cancellation of workshops at ERC, with attention to the type of workshop cancelled, the type of workshop leader, and the time scheduling of the workshops cancelled. This paper was done at the request of the staff and Board of ERC and will be on file at Far West Labs.

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1981

EFFICACY OF FORMAL AND INFORMAL NEEDS ASSESSMENT PROCEDURES FOR PROGRAM PLANNING IN STAFF DEVELOPMENT

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An overall program model for staff development can be summarized by the reoccuring cycle of needs assessment, planning, implementation (and participation), and evaluation. Within this model, needs assessment is of primary importance since it establishes the focus for program planning. Yet, there is little consensus as to the best method(s) for assessment. Generally, the procedures available can be classified on a continuun from informal to formal, with the informal process being characterized by person-to-person information gathering and the formal process being systematically gathered data that can be statistically analyzed. This study addressed two concerns: (1) The determination of the level of consistency of information between an informal interview and formal computerized questionnaire; and, (2) The determination of the comparative validity of these two types of needs assessments.

The data producing sample consisted of 21 teachers that were interviewed, 43 teachers responding to the questionnaire and 24 teachers responding to both the interview and questionnaire. These 88 teachers were invited to participate in inservice programs according to their identified needs and any other appropriate project or school specific requests. Invitation and participation records were kept on these teachers for the school year.

The data for the study were analyzed by correlating the need and invitation profiles, need and participation profiles, and invitation and participation profiles for the 88 teachers. The mean correlations (z-score conversions) were analyzed using the analysis of variance. From these analyses, it was determined that the overlap in information between these two types of assessments is near zero; that both types of assessments are equally valid, with an about 40 percent overlap between teacher identified inservice needs and participation; and, that there is no advantage to using both types of assessments, even though this process results in two to three times the number of identified needs then when using either one of the two types of assessments by itself.

A PHENOMENOLOGICAL STUDY OF USER AND NON USER PERCEPTIONS OF A TEACHER CENTER AND INSERVICE

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The current trend toward the use of teacher centers as an avenue for teacher growth and development has created substantial professional interest. Relevant literature has been primarily descriptive and theorectical, however. Until very recently no research had been found which addresses teachers' perceptions as outcomes. Neither had any study been identified that characterizes users and non users of a rural teacher center.

At the time of the investigation RISE Teacher Center had completed its fourth year of service to approximately 500 teachers in nine towns in east-central Connecticut. A demographic survey of these teachers revealed three categories of their usage of this center: Non users (NU), Occasional Users (OU), and Frequent Users (FU). The major purpose of this study was to identify and explore perceptions of teachers representative of these categories with regard to their beliefs about the effects of inservice and other teacher center services upon themselves.

A research team was formed and trained to collect the data by conducting in-depth oral history interviews with 36 teachers representative of the three categories of center usage. The sample was further stratified according to years of teaching experience. Interviews were transcribed and analyzed accordance with the phenomenological attitude of reduction in order to identify essences of these teachers' perceptions. Analyses were conducted independently by two researchers experienced in such investigations; their findings were then examined for agreement with regard to essence and major and minor themes.

Major themes identified in this investigation are briefly summarized.

- The rationale/purpose of inservice was generally perceived by NU's as an attempt to resolve deficiencies in the schools; OU's understood it as a mechanism for keeping professionals up-to-date on current trends; FUs tended to perceive it as a vehicle for improving the quality of their personal and professional lives; facilitating growth.
- Curriculum development in inservice was equated with selection of materials and textbooks. OU and FU teachers perceives that function as accomplished best by exposure to exemplary work done by other teachers.
- In relation to administrators' involvement with inservice, all subjects expressed clear beliefs that principals either facilitated the process or inhibited it. No one was indifferent about the principal's role. OUs were the most outspoken in characterizing principals negatively.
- Opportunity to exertise personal choice from a variety of options was perceived as extremely important to all subjects. "Choice" constitutes a degree of "control" in their professional lives.
- The majority of the subjects accepted that teachers should be responsible for their professional development, but a substantial minority of NUs and OUs believed that their local system and/or the state was ultimately responsible.

- Most preferred inservice was generally described as programs which provided concrete things/experiences which (1) could be seen first-hand, (2) could be applied in one's classroom, (3) were presented by credible presenters, i.e., practicing teachers. FU teachers were again preoccupied with choice, indicating that "preferred inservice was whatever one chose to attend."
- Physical resources of RISE Teacher Center were enthusiastically praised by OUs and FUs; NUs had not visited the Center.
- Advisor/consultants working in RISE schools were characterized by OUs and FUs as "professionally and personally supportive." FUs used particularly sentient language in recounting incidents/anecdotes illustrating emotional support that had been received.
- RISE was variously described by OUs, FUs, and two NUs as the personification of good educational practice. It became evident that for the majority of the subjects, RISE stands for, cultivates, and supports exemplary quality in schooling practices.
- All subjects clearly endorsed the concept of a Teacher Center Policy Board as the governing body of RISE. Even the several NUs who were unaware of the TCPB articulated support in principle.
- Several themes emerged from the subjects' discourse concerning career satisfaction and life plans.
  - (1) Knowing by being able to see that one is effective and successful with students is essential for one to feel career satisfaction.
  - (2) According to the samplying process teachers who were most inactive in professional development activities revealed the least dissatisfaction in their careers.
  - (3) OUs and FUs frequently referred to the importance of external public approval and respect as influencing their perceptions of career satisfaction.
  - (4) NUs appeared to be generally content with teaching as a career.
  - (5) All but one of the FUs were actively exploring possibilities for a career change.

In keeping with the phenomenological nature of this investigation it is important to keep in mind that these subjects were speaking foremost about themselves, secondarily about the "objects" of their perceptions such as inservice, principals, advisor/consultants, and so on. While useful insight about these "objects" was obtained, the most profound themes are those which concern these teachers' perceptions of themselves. In spite of numerous differences in essences among the thirty-six subjects, there are some noteworthy similarities.

- The need to believe that one is in control of his/her professional life constituted a major essence of this study for OUs and FUs. NUs were minimally concerned with power/control issues in their professional lives.
- All but three teachers in the sample can be characterized as manifesting internal locus of control in regard to assessing their professional performance. They looked inwardly for judgments of quality in their professional lives, but this interal focusing was augmented by expressions of need for ongoing support from significant others.
- Issues involving trust constituted a continuous thread in the fabric of dialogue concerning professional relationships. Each interview could be analyzed in terms of a trust-distrust dichotomy, and individuals most readily trusted in an inservice context were fellow practicing teachers. "Believing" was closely tied to "seeing" with the majority of respondents.

INDIVIDUAL AND SYSTEMIC CHANGES MEDIATED BY A SMALL EDUCATIONAL GRANT PROGRAM

SUMMARY

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The St. Louis Metropolitan Teacher Center is one of several centers funded by the United States Department of Education Teacher Center Program. The major thrust of the Center is to provide opportunities for inservice education that are based upon teacher identified needs. The program has two main components: inservice workshops/courses and minigrants.

This study focused on the Minigrant Program which provides small amounts of funds (up to $750) for individuals to use in developing specific educational projects. The impetus for the study originated with the Policy Board and the author's curiosity regarding teacher involvement in projects they themselves design. A proposal entitled The St. Louis Metropolitan Teacher Center Minigrant Program: A Case Study was submitted and subsequently funded by the Teachers' Center Exchange Mini Award Program for Research On Experienced Teachers' Centers in September, 1980.

The initial problem posed for the study was what impact have minigrant projects had on project developers and the educational systems they represent? The research had three major objectives: 1) to determine the impact of participation in the program on project developers, 2) to determine the impact of participation in the Minigrant Program on systemic innovation and change, and 3) to develop a more basic understanding regarding what happens to projects after the conclusion of funding. These objectives prompted several "foreshadowed problems" (Malinowski, 1922) which were initially helpful in guiding the research.

Ethnographic methods were employed. Data was collected through participant observation, recorded interviews and examination of documents. The "triangulation" (Denzin, 1970) that results from multiple methods supported the research objectives outline earlier. All participants gave their informed consent and the researcher gave assurances that their anonymity would be protected.

The findings are portrayed through a descriptive narrative which takes the form of extended case studies and discussions of data across the forty-nine (49) projects in the study. The following implications are noted at this time:

1. Teachers in the study developed projects which were based upon needs expressed at several levels: classroom, building and school district;
2. Teachers not only designed useful materials and workshop programs, they experienced a good deal of learning about curriculum, instruction, working with others, implementing projects with students and developed confidence in themselves as professionals;
3. For many project developers, completed projects provided a high level of satisfaction and a sense of accomplishment which in turn served as a platform for formulating future goals and actualizing new activities.

4. Teachers who were involved in curriculum development projects exhibited the strong tendency to design materials that were grounded in the realities of classroom instruction(i.e., needs and interests of students, classroom organization that facilitates small group study and individualized attention, student responsibility for learning);

5. Many teachers behaved as "researcher" of their own curriculum practices which in turn set the stage for curriculum development within their projects.

6. The Teacher Center and its Minigrant Program served as a catalyst for teacher involvement in projects that lead to knowledge of teaching and learning on the part of participants; and

7. Projects demonstrated positive impact at classroom, building, and school district levels which suggests the hypothesis that teachers can influence systemic innovation and change through their involvement in educational projects they, themselves, design.

The researcher considers this study to be an initial step toward a theory of school improvement based upon the involvement of teachers and other professionals in self-initiated educational projects.

HELPING SCHOOLS PLAN STAFF DEVELOPMENT: A STUDY OF AN APPROACH TO INSERVICE EDUCATION

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Research Goals

1. Describe a selected approach to in-service staff development with special emphasis on identifying the operating assumptions on which that approach is based.
2. Describe the implementation of that approach, attending to the extent to which that implementation conforms to the assumptions.
3. Describe the outcomes of that approach.
4. Relate the approach, its assumptions, and their extent of implementation to its outcome.

The Approach to In-service Staff Development

The approach studied here involved four steps: 1) assessment of faculty needs; 2) planning staff development activities targeted at the identified needs; 3) conducting the staff development activities; 4) evaluating the staff development activities. These four steps were to be followed by a school's faculty, working together, benefiting from and taking responsibility for the entire effort. To assist the faculty, three volunteers--teachers and/or administrators from other schools--acted as a Facilitation Team, meeting with the faculty when needed and guiding them through the process. Facilitation Teams were trained and provided to the schools by the Local Teacher Center.

Methodology of the Study

A research team was constituted to include two university faculty members and three teachers currently on leave from instructional responsibilities to pursue advanced training. That the majority of team members were teachers was an intentional effort to ground the perspective of the project in the multiple realities of the public schools. To capture these realities a variety of data gathering techniques were used including semifocused observations, structured interviews and questionnaires. The period of data gathering lasted from June of 1980 to May of 1981.

Selected Findings

Teachers Involvement. Two project assumptions were "teachers must be involved in the entire process of planning, implementing, evaluating and following-up staff development activities," and "teachers must volunteer and willingly participate in the needs assessment process." Though these were very strongly held by the teacher center staff, they were not always met. Often school administrators ignored teacher involvement, especially in early stages of the project. Results of such lack of involvement were weakened outcomes.

Role of Facilitation Team. Two assumptions concerning the conduct of the outside facilitation team were "the facilitator's function is to assist the group in defining its own needs," and "the facilitator should not be concerned with content." Facilitators felt that these assumptions did not allow them to offer advice as a consultant to the group. Because facilitators normally adhered to these assumptions, the result was a lack of needed guidance from them. The faculty groups, in the absence of suggestions and encouragement to proceed, often dropped the entire process after the inital needs assessment.

Time and the Process. Assumptions about the time required for the process to be successful were apparently justified but violated often in practice. Without allocation of enough time, the process floundered.

Effectiveness of the Facilitation Team. With a few exceptions the teams were perceived by teachers as being successful in helping needs to be identified and opening up communication among the faculty. The teams' training appeared to work.

Needs That Emerge from Group Meetings. Two of the project's assumptions were "teachers are more likely to change if the changes are perceived to meet their felt needs," and "a school-wide faculty group is the appropriate unit with which to work when involving teachers in needs assessment." Observations, interviews and questionnaires suggest that, for most teachers, the needs that emerged during the needs assessment meetings were group needs and therefore substantially different from their individually held professional needs related to the classroom, their students and themselves as teachers. Further, for most of them, though the needs of the faculty group--e.g., curricular articulation, parent/school involvement, school-wide discipline--were important, they were secondary to individual needs that did not emerge in the meeting. This contributed to the feeling of those who saw no valuable outcome of the staff development effort.

Other Findings. In addition to the above, the data collected provide interesting perspectives on the timing of inservice activities, the role of these activities in overcoming the isolation felt by many classroom teachers, and forces outside of a teacher centers control which, nevertheless, impact the center's efforts.

EXPLORING A TEACHERS' CENTER'S SUPPORT OF SCHOOL-BASED ADVISORS

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The Charlotte-Mecklenburg School System and the University of North Carolina-Chapel Hill collaborated on a study of how the Teaching Learning Center (TLC) supports and links with Coordinating Teachers (CTs) based in each school. In general, the purpose of the study was to look at the linkage between the TLC and Coordinating Teachers as a way to "magnify" the usage and effectiveness of the TLC. The study was collaborative in design and used three research methodologies. A study of TLC usage using sign-in cards, intensive interviewing with 26 Coordinating Teachers from two of Charlotte-Mecklenburg's eight attendance areas, and a survey of all 85 Coordinating Teachers in CMS. The study became more complex than we originally anticipated due to varying degrees of confusion over the Coordinating Teacher's role, the TLC's target population, and what the study results meant.

The preliminary findings can be organized into three areas: the nature of the Coordinating Teacher role, the nature of the TLC resource, and the nature of the linkage between them. The findings about the CT role indicate that the CTs are influenced by their principals, their staffs, other personnel, and the type of school served (elementary/secondary). The CT's role is legitimated by the principal, the staff, and to some degree the curriculum specialists. The definition of the role is the result of many influences, but primarily those of the Area Coordinating Teacher and other school CTs. Finally, the CT's role is in part defined by the nature of the resources available in CMS. These various influences lead to at least two orientations to the role. One orientation is that of an advising teacher who works with teachers in the areas of curriculum and instruction with an emphasis on the teacher's self-defined needs and interests. The other orientation is that of a managerial CT who tends to have some authority vested in the role and as such works with school committees and department heads, for example, with the intention that this will lead to instructional improvements. In general, it appears that role orientation is affected by whether the school served is elementary or secondary. The elementary schools tend to have more advising CTs while the departmentally structured secondary schools tend to have more managerial CTs.

The TLC is perceived as a vital resource to CTs, ranking just below support offered by the Area CTs and other school CTs. The TLC provides CTs with a broad range of resources in the areas of ideas, materials, and professional development. Emotional support, however, is often role-related when provided by the TLC and appears to be of less significance as an independent resource category. Also, it is important to keep in mind that the TLC is but one resource in CMS which has many other specialized and general resources.

The linkage between the CTs and the TLC is influenced by several factors. On one hand, the TLC is a resource that CTs use to satisfy teacher requests;

on the other hand, the TLC is also a resource CTs use in defining and fulfilling other aspects of their role. In understanding the dimensions of CT use of the TLC, the CTs may be viewed as potentially having one of three levels of knowledge. In this case, however, knowledge is not directly an information problem; it is a problem of role definition and school context. The first level is knowledge of the TLC material resources used to respond to their teachers' needs and requests. The second level includes the first, but adds knowledge of the TLC's other resources such as techniques and strategies of teaching, problem solving or discussion of classroom management. The third level includes the first two levels in most cases, but adds the knowledge that the TLC can also be a resource to the CT's own professional development through workshop planning and design, study groups, etc. In general, the advising CT usually has all three levels of knowledge. It is also possible that managerial CTs may only seek the third level, and that new CTs may be forced to limit their usage to the first level in order to build sufficient credibility to enable them to take on the advising role. Thus, only when the role is an advising one and when the principal legitimates it and the teachers agree (as is often the case in the elementary school) can a lack of knowledge be overcome by information only. This view of levels of knowledge and role orientation leading to varying CT use of the TLC can be applied to other resource roles that function as supports to the classroom teacher.

CT usage and assessment of the TLC is directly affected by role perceptions. Advising CTs are high users, as are their teachers; the reverse seems to be the case with the managerial CTs. This is of special importance given that advising CTs tend to be elementary and managerial CTs tend to be secondary. Thus, role orientation and school context seem to affect TLC usage and relative favorable and/or useful assessments of the TLC. Nevertheless, direct usage of the TLC is the TLC's best advertisement. That is, favorable use by CTs and teachers results in repeated use by those CTs and teachers and also generates influences for initial use by other CTs and teachers.

The main issue of this research is how the results of this study may be of use to the TLC and other teachers' centers. The obvious issues have to do with strengthening existing linkages and developing new linkages. Given the effects of role orientation, it seems that the TLC could strengthen the linkage with school CTs through efforts focused on the CT's instructional role with an attempt to foster a more widely accepted advising orientation. However, since school context (especially elementary/secondary) is important, it would seem the TLC could also focus more specifically on secondary schools. To do so, however, would not be easy--for to change either the CT's (and the principal's) perceptions of the CT's role to a more advisory approach or to change the secondary school's orientation would be beyond the TLC's purview.

The TLC's philosophy of volunteerism and self-identification of needs is a significant departure from normal organizational arrangements based upon hierarchical authority. The TLC fosters *authenticity* (what people decide *they* want to do) while organizations like school systems most often foster *legitimacy* (what someone *should* do, regardless of whether they want to or not). To uncritically use the results of this study would imply that the TLC should be used by everyone regardless of whether they wish to or not. Thus, if linkage and support are developed so that CTs and their teachers believe their role *requires* the usage of the TLC, the TLC will have compromised their own approach. Thus the TLC must face the issue of the uniqueness of their resource and decide whether increased usage and the legitimacy it may bring is a significant threat to that uniqueness. As the study clearly indicates, the TLC is but one of the resources, albeit a highly valued one, upon which a CT can draw. The other resources may provide sufficiently for the managerially-oriented CTs and their schools, suggesting that given the context the TLC should maintain its present direction while continuing to promote volunteer usage.

The dilemma is whether the TLC should alter its orientation in order to gain new users, or maintain its uniqueness and work more informally to alter CT role definition and school contexts. What would be gained or jeopardized by each approach? And more broadly, to what degree can teachers' centers maintain their ideology within the traditional organizational structure of public schools systems?

CHICAGO TEACHERS' CENTER
Northeastern Illinois University

A STUDY OF THE ACTIVE STAFFING PROCESS OF A TEACHERS' CENTER

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RESEARCH PROBLEM

Teacher centers have the potential to be settings where teacher concerns can become starting points for reflective thought and professional growth. In order to provide this kind of support, a center would need a staff of experienced teachers who could actively and emphathically engage center users in discussions about their work. Such conversations would involve raising questions, suggesting options, or examining unstated assumptions.

In this study we researched how center staff and teachers actively interact with one another in order to reflect on issues about the teaching/learning process as it relates to curricular concerns. It was assumed that if teachers in a drop-in facility were approached by active staffers, more meaningful involvement would take place. Since a definition of active staffing is crucial to an understanding of these interactions, we focused on two questions: (1) what are the defining elements of active staffing from both the staff member's and the teacher's perspective, and (2) what is the role of an active staffing program within the context of a teacher center.

METHODOLOGY

The concept of active staffing was documented through the collaboration of an experienced teacher-center staffer and a university researcher. This staff member employed the active staffing process in the center two days per week for four months and wrote detailed logs of encounters with nine subjects, which served as the data base for the study. Other staff members at the Center participated in the active staffing process and its documentation. Written logs, reflections, and conversations were analyzed by the research team. To obtain preliminary estimates of teacher growth, baseline data of center users were gathered through a questionnaire and telephone interviews. At the end of the active staffing phase of research, teacher participants were also interviewed by telephone.

RESEARCH FINDINGS

Defining Elements of Active Staffing

Our analysis of the data revealed that the active staffing process can be divided into four stages. First, when a staffer responds to an initial request, emphasis is placed on establishing rapport and mutual respect. Second, in the process of assisting a teacher the staffer explores latent or underlying reasons for the manifest request or gives a broader perspective to the concern. This dialogue provides focus to the inquiry. Third, a variety of strategies are used to jointly solve the problems posed. These include: brainstorming, discussing possible instructional activities and principles, diagnosing childrens' needs and individual differences, and considering appropriate resources. Fourth, contact with teachers is maintained by inviting the teacher back to share classroom outcomes, offering to visit the teacher's classroom, and being available for further consultation.

Guiding Principles

Several principles guided the active staffing process. First, active staffing was seen as a process that the staff and teachers create together, which means there must be openness on the teacher's part and an ability to foster dialogue on the staff person's part. Second, the active staffing process focuses primarily on ways of thinking about learning and teaching and the meaning of classroom activities for the teacher. Third, teachers bring a wealth of knowledge from past and current classroom experiences to active staffing encounters and these can serve as building-blocks for professional growth.

Active Staffing in Context

Finally, the active staffing process in this study was bounded by certain constraints. First, teachers who visited the center came from a variety of school situations and settings, and these contributed to the complexity of the interactions between staff and teacher. In some cases participants were under severe stress. Second, in order for a teacher to function effectively as a staffer, he/she must be able to draw upon a rich base of knowledge about human development as well as theories of learning and how they apply to specific classroom practices.

ANALYSIS OF INDIVIDUALIZED TEACHER CENTER SERVICES

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While teacher centers are usually designed to meet the unique needs of individual educators, little is known about the process and impact of individualized teachers' center services. During the past two years hundreds of teachers and administrators have individually requested assistance from the Northwest Staff Development Center (NSDC) to address the pressing concerns of their work. Although these individualized services are popular with practitioners, NSDC has had little opportunity to assess the short and long term effect of these services on the requesters and/or their students.

The purpose of this study was to describe the characterisitcs of individualized services and the practitioners who used those services. For the purpose of this study individualized services are defined as those forms of assistance that may be requested directly by teachers and administrators through the use of a "Request for Services" form. The following research questions were addressed in the study:

1. What are the characteristics of an individualized delivery system?
2. How is it different from other types of teacher center delivery systems (e.g., workshops, Mini-Awards, etc.)?
3. Is there a relationship between the type of request for services and certain demographic and other characteristics of the teacher making the request?
4. Are teachers who make frequent request different from teachers who make few or no requests?
5. Is there a "networking" effect among the teachers who use these centers' services?
6. What is the role of the school principal in the process?
7. What is the impact on educators' job-related behaviors and their perception of student achievement?

The research design of this study consisted of several phases. The major foci were the analyses of the documents associated with a sample of 562 requests (out of 2,218) made by 277 (out of 1,109) practitioners, and the analyses of 51 interviews conducted by 10 teachers.

The preliminary results of these analyses indicate that a description of the characteristics of an individualized service would include the following: (1) it was a workshop attended within the state; (2) the focus of the workshop was on either new teaching techniques or new information; and (3) the center provided reimbursement for a substitute and conference fees. Individualized services differ from other teacher center services in that they are initiated by the teacher alone and that they provide "something for everyone."

The person making the request was usually a female elementary school teacher with a master's degree and about 17 years of teaching experience. If she/he made frequent requests (more than seven) for services, she was even more likely to be female and to attend the activity alone.

If a networking effect existed, it appeared to be dependent upon the presence of an advocate in the school building. The advocate could be either an administrator, specialist, frequent requester or member of the center's policy board. The role of the principal ranged from providing no support to being supportive but didn't make suggestions to supportive and made suggestions.

The majority of the participants reported that the experience had had a positive impact on their job-related behaviors and attitudes. They also stated that they believed student achievement, self confidence and motivation had increased.

The overwhelming tone of all the data collected was extremely positive. Eighty-three per cent of the participants reported being very satisfied with the individualized service. It was clear that the teachers believed that the experience "made a big difference" and that they were extremely unhappy to see the center close.